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**Official Organ
of the
North Central Association
of Colleges
and Secondary Schools**

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**The
NORTH CENTRAL
ASSOCIATION
Quarterly**

April 1961

VOLUME XXXV, NUMBER 4

Association Notes and Editorial Comment

**ACCREDITING AND
EDUCATIONAL DIVERSITY**

THE BASIC purpose of the North Central Association has, from the beginning, been the improvement of the quality of education. Though its basic purpose has remained unchanged, it has tried to be continually alert to the need for modifying the means by which it works to accomplish its purpose. One of the most significant modifications in the North Central Association's approach to accrediting is, curiously, one about which there is a great deal of misunderstanding. We refer to the change in the definition of educational quality itself.

The confusion as to the meaning of quality in the modern educational world stems from a failure to comprehend fully what has happened in American education. At an earlier day educational opportunities, at least beyond the literacy level, were largely limited to those who were destined for positions of leadership in society. These were, in the main, an intellectual and social elite, and they were offered a program of educational experiences strongly oriented toward the scholarly and academic. Under such circumstances quality in education was, of course, defined in terms of high-level academic achievement.

Today the situation is entirely different. The educational tasks to be performed have grown in number and variability in

response to the needs of a society of growing complexity. Educational opportunities are being extended to ever larger numbers of young people; not just to those who are to occupy positions of leadership. The result is that diversification of programs both within and among institutions has come to be a major characteristic of the American educational enterprise. Only through diversification can education serve the many functions assigned to it. Only so can it provide meaningful educational experiences for a student body widely diverse in interests and aptitudes. We have schools with a strong vocational orientation serving an industrial community; others with students from the upper socio-economic levels will be largely college preparatory. Still others combine these and other functions.

We have community colleges serving an unselected local clientele and liberal arts colleges serving a highly select group, most of whom will continue their studies in professional and graduate schools. We have schools of engineering, schools of business, schools of medicine, schools of art and schools of music, theological seminaries and schools of cosmetology. We have various combinations of these, as well as some admixture of liberal arts.

Under these circumstances, institutional quality cannot be thought of as an absolute—something that always can be described in the same terms. Rather, it

can have meaning only in relation to institutional function, and since functions differ widely among and within institutions, institutional quality must have many meanings. The technical institute that turns out excellent technicians is a quality institution just as the graduate school which produces fine scholars is a quality institution. The North Central Association evaluates each of them in terms of the function it proposes to perform, assuming, of course, that the avowed function is appropriate to the clientele being served. It is just as appropriate for the Association to accredit an institution enrolling an unselected student body but successful in providing those students with an education appropriate to their intellectual level, as it is to accredit an institution which is successful in educating a highly select student body. All these are quality institutions, but they are not alike.

Our difficulty is that there is widespread misunderstanding of the present-day meaning of institutional quality. It is apparent that all too often quality is still given the more limited meaning of an earlier day when it was associated only with an intellectual elite. Illustrative is the complaint commonly heard from both students and administrators of educational institutions that credits earned in one accredited institution are not accepted by another accredited institution to which a transfer is being made. Sometimes, it is true, refusal to accept credits is done arbitrarily and without good reason. However, such action is wholly justifiable if the credits to be transferred do not represent outcomes *in content and level of achievement* consistent with the expectations held for students in the program to which the credits are being transferred.

Clearly, the accrediting agency can operate realistically only if it recognizes the basic fact of diversity in American education. It must evaluate institutions in relation to the goals they endorse. Evaluation is, by definition, the measuring of quality. Since institutional goals are many and varied, quality has many meanings. Acceptance of this principle would clear

up an important point of confusion about the meaning of accreditation.

NORMAN BURNS

NORTH CENTRAL PUBLICATIONS

THE NCA COMMISSION on Research and Service, through newly-issued publications, continues to make available vital research and program materials developed through current projects. These booklets, pamphlets, and monographs are being distributed to thousands of schools and agencies, within and outside the NCA region.

Recently mailed to all NCA member institutions were three copies of *The Uses of Television in Education*, a revised bulletin prepared by the NCA Subcommittee on Television with a grant from the United States Office of Education. This colorful booklet sets forth basic principles and recommendations for the use of educational television, as evolved at a seminar of knowledgeable persons held December 3-6 1959. A limited number of copies are available without charge from the NCA Secretary's Office, University of Chicago, 5835 Kimbark Avenue, Chicago 37, Illinois.

As a supplement to this publication, THE QUARTERLY presents in this issue, a summary of a recent pilot conference convened for the purpose of further disseminating the principles and practices outlined in *The Uses of Television in Education*.

The NCA-STs Project announces the recent release of two monographs designed to contribute to the overall STs objective of providing schools with materials which will aid them in implementing a talent development program. The two booklets, written by prominent educators, are: Robert F. DeHaan's *Guidelines for Parents of Capable Youth* and Frank S. Endicott's *Guiding Superior and Talented High School Students*. These publications should be ordered from NCA Project on Guidance and Motivation of Superior and Talented Students (NCA-STs), 259 East Erie Street, Chicago 11, Illinois. For prices, see page 321 of this issue.

Dr. DeHaan, Chairman of the Depart-

ent of Psychology, Hope College, Holland, Michigan, directs his remarks to all parents interested in aiding the able child. He offers concrete suggestions for making scholastic activities more attractive and gives a realistic description of the talented adolescent—his hopes, fears, and problems.

Dr. Endicott, Associate Professor of Education and Director of Placement Services at Northwestern University, Evanston, Illinois, outlines for secondary school administrators, counselors, and teachers, practical procedures in providing guidance services for the able student. Further, he includes an evaluative checklist which schools could use to determine the effectiveness of their guidance program.

The NCA Foreign Relations Project announces the availability of Teachers' Guides for their two new titles, *Africa and the World Today* and *The United States in the United Nations*. These timely publications are being used in thousands of social studies classes to help students understand some of the fundamental goals of African leadership and the problems which must be overcome if African aspirations are to be fulfilled. They assist these students in their study of basic goals of America's foreign policy and the nature of world organization.

For a complete list of the eight published booklets, accompanying guides for teachers, and classroom tips, as well as prices for single and multiple copies, see page 320 of this *QUARTERLY*. All correspondence with reference to these publications should be addressed to NCA Foreign Relations Project, Suite 832, First National Bank Building, Chicago 3, Illinois.

NCA VISITS OTHER ASSOCIATIONS

THE NORTH CENTRAL ASSOCIATION and the five other regional accrediting Associations have a long-standing custom of exchanging fraternal delegates at their respective annual meetings. These visits afford excellent opportunity for sharing information and thinking on matters of mutual concern. This channel of communication also makes possible better inter-

regional cooperation on common problems.

In this issue of *THE QUARTERLY*, NCA delegates briefly record their observations on the current procedures, structures, projects, and research, as well as the projected plans, of the other Associations.

THE MIDDLE STATES ASSOCIATION

THE ANNUAL CONVENTION of the Middle States Association addressed itself to the question of the individual student and the problems that confront him in fulfilling his ambition to obtain an education. As the common denominator of all our educational effort, the student should occupy the center of the stage. What happens to him determines what happens to American education. The purpose of the Convention, therefore, was to redefine the goals of our entire educational program in terms of the student, to identify the problems which beset him, and to work toward greater cooperation between the secondary school and the college in an attempt to achieve the highest possible educational benefits for the student.

The general meetings of the Association were all held on one day—Friday, November 25th. In the morning session, reports of the officers, the Commission on Institutions of Higher Education, and the Commission on Secondary Schools were heard, and officers for the ensuing year were elected. Following the business portion of the morning meeting, two speakers presented excellent papers on the general theme of the convention. They were Dr. Helen C. Bailey, Associate Superintendent of Schools, Philadelphia, Pa., and Dr. Edward D. Eddy, Jr., President, Chatham College, Pittsburgh, Pa.

In the afternoon the one thousand or more delegates were distributed among thirty workshop sessions to discuss the theme of the convention against the backdrop of the two morning addresses. A working paper sent out to the delegates well in advance of the convention served to keep discussion in the workshop sessions focussed on the main theme of the program: "The Student As the Common Denominator."

Beginning at 7:30 in the evening, the two commissions met separately. The Commission on Institutions of Higher Education presented problems which a visiting Middle States team might encounter and sought answers to these problems through audience participation. The Commission on Secondary Schools devoted its attention to "The 1960 Edition of the Evaluative Criteria."

The over-riding problem for the student today, as the delegates to the Middle States Convention see it, is college admission and secondary school preparation requisites for college admission. In his address, Dr. Eddy described this problem as a "national admissions crisis, in which the individual student is often tragically forgotten." He stated that this unprecedented situation in education is an extremely dangerous one to which the colleges and universities must give greater attention than ever before. If educators fail to meet their responsibilities toward the individual student within the next few years, said the speaker, Congress may be forced to establish a national admissions clearing bureau to satisfy the public clamor. In that event, "the time and the prerogative for remedy will have escaped us."

Although it was clear to the participants of the convention that better college-secondary school articulation was necessary, it was not entirely clear how this could best be brought about. However, once educators understand that a basic obligation rests on them for improving the transition of the graduates from school to college, the specific means will be found. Indeed numerous procedures are already at hand. As a symbol of common concern for the individual student, the Middle States Association stands significantly on the scene.

The new president of the Middle States Association is Rev. Laurence J. McGinley, S. J., President, Fordham University, New York City.

E. J. O'DONNELL, S. J.
Member of the NCA
Executive Committee

THE SOUTHERN ASSOCIATION

IT WAS MY distinct privilege and a memorable experience to serve as the NC fraternal delegate to the Sixty-fifth Annual Meeting of the Southern Association of Colleges and Secondary Schools for five days from November 27 to December 1, 1960 in Memphis, Tennessee. The ever present southern hospitality, the sincerity and warmth of the many individuals and groups with whom I associated, and the professional dedication and motivation of everyone there resulted in a most rewarding and profitable experience.

The Southern Association of Colleges and Secondary Schools is very similar to the North Central Association in structure, program, and interests. It is made up of a Commission on Secondary Schools, a Commission on Colleges and Universities, and a Commission on Research and Service.

It is of interest to note that the Southern Association was organized in 1895 and now consists of the following eleven states: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. In addition it has provision for extra territorial membership in a category of Latin America. The Association now is made up of over two thousand secondary schools and about 360 junior and senior colleges. The Southern Association has some aspects and activities which differ from those of the North Central Association. For several years the Southern Association has carried on a cooperative program in elementary education. This program was created as a service project by the Association in 1952. It is in effect a program of affiliation for elementary schools under the sponsorship of the Commission on Research and Service. A regional elementary committee coordinates the state and regional activities and provides liaison with the Commission on Research and Service of the Association.

The 1960 Annual Meeting of the Southern Association was very similar in structure and content to annual programs of the North Central Association. The general sessions were held during the

week. The first general session was addressed by Walter K. Kerr, Pastor, Marvin Methodist Church, Tyler, Texas, who gave a stirring talk entitled "The Young Idea." Reverend Kerr presented with conviction his thesis that the solution of our problems must be by cooperation rather than by competition and that the leaders we choose must first be followers of God.

The second main speaker was the famous Dr. Wernher von Braun, the missile expert. Dr. von Braun presented a most thrilling story on the current developments in this space and missile age, presenting it fortunately in a framework of educational thinking and goals.

The most striking development in the Southern Association is a "Proposed Revisions in the Constitution of the Southern Association of Colleges and Secondary Schools." This proposal grew out of a report of a special Study Committee which has been carrying on its investigation for the last two years. That Committee was assigned to study the purpose and operation of the Southern Association and to project its potential activities for the next ten years. The Committee presented a report to the Executive Committee of the Southern Association as Bulletin Number One, June 15, 1960. This report was then enlarged into a report of a special committee on constitutional revision appointed by the Executive Committee of the Southern Association and was presented as Bulletin Number Two, October 3, 1960, *Proposed Revisions in the Constitution of the Southern Association of Colleges and Secondary Schools*. These two bulletins indicate quite clearly the direction of thinking in the Southern Association and contain some striking changes. First, the Southern Association would have only two Commissions, a Commission on Schools and a Commission on Colleges. The Commission on Research and Service would be replaced with a Committee on Studies and Research.

The Commission on Colleges would continue to serve and function largely as has in recent years. The Commission on Schools would provide for the accrediting

of schools as follows: (1) senior high schools and junior high schools on an individual basis, (2) elementary schools on a system basis, and (3) systems of schools on a system-wide basis. Although the report of the Study Committee and the presentation of the Executive Committee concerning these changes indicated quite clearly the convictions of those who made the report, in these early stages there is considerable difference of opinion in the membership of the Southern Association concerning these changes and the direction which that Association may take when these proposals officially come up for voting during the 1961 Annual Meeting.

Another important proposal included with those above is for the Southern Association to establish a Central Secretariat, under the leadership of a full-time Association Director and a full-time Comptroller. Executive secretaries would be maintained for each of the two Commissions.

In addition to the three general sessions and various sub-meetings of the three Commissions, the program of the Southern Association is enlarged considerably by the specialized programs of the following affiliated groups which arrange meetings concurrently with the Annual Meeting of the Southern Association: Academic Deans, Junior Colleges, Registrars, Church Related Colleges, Colleges for Women, Public Higher Institutions, Council on Teacher Education, Independent Schools, Council for Small Colleges, Catholic Educational Association, Methodist Church Institutions, Baptist Colleges and Schools, Presbyterian Colleges, Directors of Certification, Council of the Southern Mountains, and Deans of Faculties and Academic Vice President. I had the opportunity of meeting with the Southern Association Committee on the Superior and Talented Student Project in which the Southern Association is cooperating very successfully and enthusiastically with the North Central Association under the leadership of our director, Dr. J. Ned Bryan, who also attended the meeting in Memphis.

Limitation of space does not permit

reporting on several other very interesting meetings and discussions which the writer had the privilege of observing during the four-day stay in Memphis. To a very great extent one could quite easily imagine that he were attending a very fine Annual Meeting of the North Central Association. It was my privilege to make many new friends and there was of course a great deal of genuine interest in what is happening in the North Central Association. In terms of structure, program of activities, and interest the Southern Association and the North Central Association probably are about as similar as two groups could be.

The new president of the Southern Association of Colleges and Secondary Schools is Spencer J. McCallie, Jr., Headmaster, The McCallie School, Chattanooga, Tennessee.

CLYDE VROMAN

Chairman of the Commission on Research and Service

THE NEW ENGLAND ASSOCIATION

ALTHOUGH IT IS not customary for the same person to serve as North Central Association fraternal delegate to more than one other regional accrediting association in any one year, it was my privilege to serve as substitute for Dr. Norman Burns as the North Central Association delegate to the 75 Anniversary Meeting of the New England Association of Colleges and Secondary Schools. This proved to be a most pleasant and rewarding experience, for the affair as one would expect was conducted in true New England style of dignity, tradition, humor, and imaginative planning.

The New England Association of Colleges and Secondary Schools had its beginnings in 1885 and is the oldest of the regional associations. It has always had outstanding leadership, and its history is marked by a succession of the most able and best known educational leaders in the New England area.

The New England Association embraces the six states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. It does not

have formal commissions within its association. Rather, it conducts its business through three Standing Committees as follows:

Standing Committee on Independent Secondary Schools

Standing Committee on Institutions of Higher Education

Standing Committee on Public Secondary Schools

At the business meeting on December 1, 1960, the Association announced the establishment of a Subcommittee on Parochial Schools as an addition to the Standing Committee on Independent Secondary Schools.

Although the Association has been in existence for 75 years, its practice of evaluating and accrediting schools and colleges is relatively new. In his "A Nutshell History of the New England Association" Claude M. Fuess says: "In 1954, under some pressure, the Association became an accrediting agency for colleges and schools in the New England area. It had become increasingly desirable for some reputable organization to define and enforce standards. The existence of irresponsible and even unscrupulous educational institutions is always disturbing to a community and can be controlled only by a central authority which is both unprejudiced and respected. The time arrived, then, when leaders in the Association felt justified in setting up the necessary machinery for the purpose. Although it had no legal status, its manifest disinterest gave it the essential prestige. Some opposition from high quarters developed within its own membership, but ultimately sentiment favorable to 'evaluation' was clarified and unified. Probably few now regret this action."

As of September 1, 1960, the New England Association included 108 colleges, 480 public schools, 159 independent schools, and 120 individuals or a total of 867 members.

Because this meeting marked the 75th Anniversary of the founding of the New England Association, the program on Friday, December 2 was changed from the customary form to include four main

parts: First, during the morning there were three separate meetings: one for the delegates of institutions of higher education, one for delegates of public secondary schools, and one for delegates of independent secondary schools. At this meeting Dr. Clayton Bennett, Associate Director of the North Central Association Superior and Talented Student Project, described the project to about 500 public school principals. His report was warmly received. The New England Association is cooperating with the North Central Association and other regional associations in developing the STS Project on the national level. The second part of the morning session was devoted to the annual business meeting conducted by Dr. Nils V. Wessell, President of the New England Association and President of Tufts University.

At the luncheon meeting greetings were brought to the New England Association from the fraternal delegates of the Middle States Association, the Southern Association, and the North Central Association. The guest speaker for the luncheon was Dr. Fred M. Hechinger, Education Editor, *The New York Times*, New York, New York.

The third part of the day's celebration consisted of a 75th Anniversary program during which three former presidents of the New England Association spoke of "The Good Old Days."

And finally, the culminating session was the banquet meeting which was attended by an overflow crowd and which effectively climaxed this significant anniversary.

As one looks back upon such a stimulating and enjoyable experience and tries to analyze the New England Association of Colleges and Secondary Schools, it is strikingly apparent that the Association clearly reflects the long history of both private and public education in the New England states. Although such practices as accreditation and the use of the Evaluative Criteria in working for the improvement of secondary schools and colleges are relatively new there and are just beginning to be implemented, a visitor

quickly reaches the conviction that there has been fine educational leadership and high educational standards in the New England states. A visitor is also struck with the extent to which different segments of education are still compartmentalized, for example, into public, independent, and parochial educational groups. However, one also observes that these three groups, in cooperation with the colleges, are moving forward through very admirable cooperative action at a pace which is feasible and consistent with sound developments. I am sure that we will be hearing more of significant developments in the New England Association.

The new president of the New England Association is John C. Boyden, Director of Admissions, Deerfield Academy, Deerfield, Massachusetts.

CLYDE VROMAN

*Chairman of the Commission on
Research and Service*

THE NORTHWEST ASSOCIATION

ONE SOMETIMES hears the criticism that delegates to official gatherings spend more time traveling around and seeing the country than attending the scheduled meetings of the association. No criticism could apply more aptly than in my case in attending the winter meeting of the Northwest Association which was held in Missoula, Montana, November 26-29, 1960.

I learned many years ago that I enjoyed the Association meetings most when I arrived a few hours early and had an opportunity to chat with old friends and new acquaintances before the formal meeting began. These occasions were not only enjoyable but generally most profitable. Often more "straight-from-the-shoulder" information is given in an informal group of three or four persons than in a formal meeting where a half of the audience is diligently taking notes.

However, at the Northwest Association meeting I was to be denied the pleasure of a pre-session. Instead of getting into Missoula half a day early, I arrived more than a day late. From Greeley to Salt Lake City the sun was bright and the

trip west over the continental divide was beautiful, but soon after, we turned north and bad weather developed. At landing time in Missoula we were "socked in" by heavy fog. We flew on to Great Falls where we spent the night. Some eighteen or twenty delegates on the plane were involved in the delay by this time. Next morning we tried for Missoula again, but again just before landing time the airport became enshrouded in a heavy fog and when we eventually "put down," we found ourselves in Spokane, Washington. After a few hours of waiting, grim determination caused us to take a Greyhound bus back to Missoula over snowpacked and icy roads. While this trip took several hours, it was rewarding to see the beautiful mountain country of Washington, Idaho and Montana in the dead of winter.

I tried to make up for lost time by attending meetings in the Florence Hotel whenever and wherever I could find one. My first impression was that the storm must have taken a severe toll on the attendance of delegates as the number present was so very small in contrast to the large numbers usually in attendance at the annual meeting of the North Central Association; then I discovered relatively few delegates representing secondary schools. The sparsity of population in this area accounted for the numerically smaller meetings which I attended.

My host very kindly complied with my request to be allowed to sit in the Commission on Higher Schools of the Northwest Association to compare its deliberations and actions with those of the NCA Commission in which group I served as a Commissioner for twelve years. Again, I found another quite dissimilar condition prevailing. Several colleges operate in a dual accrediting situation and I found some colleges which held their membership in the Northwest Association on the basis of an old established "loyalty" concept while it appeared that the real operational control was vested elsewhere.

The problems of accreditation were exactly the same as those commonly experienced in the North Central Association.

The attack on the solution of these problems was with the greatest of vigor, determination, logic and spirit of fairness that one could find in any accreditation group. Like the North Central Association, the greatest difficulty seemed to center around those high-class, highly-specialized institutions offering advanced degrees whose academic performance was above reproach but whose related problems were almost imponderable.

On the second day I was graciously extended a considerable period of time to bring greetings from the North Central Association to the membership of the Northwest Association, to share with them our experiences of success and failure over the past ten years, and to relate the problems we have encountered and how we have tried to handle them. This was a most valuable experience for me and a hope of some value to them. At least it was a rare situation, one of exchanging of basic ideas at a top operational level. I had previously thought this impossible.

Before the final banquet meeting, word reached us that a severe storm was driving down from the arctic regions and a planload of timid souls who had other important engagements in the immediate day ahead foresook the pleasures of the featured event of the meeting and escaped by plane just ahead of the storm. However, much longer other delegates from far distances had to remain in Missoula, I have not heard. Whatever cold, discomfort, and inconvenience the storms of the region caused was quickly and definitely obliterated by the warmth, sincerity and graciousness of my host, the executive secretary, the officers and all of the members of the association with whom I came in contact. It was an occasion which I shall always remember and deeply appreciate.

WILLIAM R. ROSS

NCA Past President

THE WESTERN COLLEGE ASSOCIATION

FOCUSING ON A major and persistent challenge to higher education, the Western College Association devoted its 1964 annual meeting in Los Angeles principally

to the theme, "Excellence in Teaching as a Basis for Excellence in Education." Beginning in the first general session with the broad topic of education and excellence, a series of group discussions subsequently dealt with curriculum, institutional diversity, teacher selection and preparation, research, extra-classroom commitments, and automation and electronics as these relate to excellence. Three succeeding major sessions pertained to governmental responsibility for excellence, the aspirations and achievements of students, and higher education and world affairs.

The Western College Association President, George C. S. Benson, set the tone of the meeting in calling for excellence devoid of academic snobbishness. Clarence H. Faust, President of the Fund for the Advancement of Education, characterized the teacher as an intellectual midwife coaxing into birth knowledge, skills, and attitudes from the mind of the learner. He also gave specific examples of placing increasing emphasis on independent learning at the collegiate level.

Calling upon the federal government for increasing financial assistance, Rev. Paul C. Reinert, S. J., President of St. Louis University, spoke for more aid to colleges and less to students and for the full payment of research costs by the government. He expressed the feeling that diminution of quality must be avoided in mass higher education. J. Ned Bryan, Director of the STS Project of the North Central Association, discussed the problems associated with identifying and motivating potentially superior students and the work of certain California schools in this project.

At the concluding luncheon meeting the Chancellor of UCLA, Franklin D. Murphy, placed schools and teachers above roads and industries in the promotion of peace and progress among foreign nations. He advocated mastery of a foreign language by all college graduates and improved textbooks dealing with history.

Of special significance was the proposed move of the Western College Association, the California Association of School Administrators and the California Junior College Association to create an accredi-

ing agency to be known, possibly, as the Western Association of Schools and Colleges. The latter agency would not replace any of the three groups, each of which would continue much as now operating.

Some discussion was directed to legislative pressures in part attributed to the fact that only two states (California and Hawaii) are included in the Western College Association. The possibility of future realignment of states was mentioned and related to the need for accreditation of secondary schools.

The hospitality of the Western College Association was warm, and the similarity of concerns shared with the NCA supports the writer's feeling that increasing inter-regional cooperation is needed and would be valuable.

STEPHEN A. ROMINE
NCA President

AMERICAN DEPENDENTS' SCHOOLS

AS EARLY AS 1947, the North Central Association, at the request of the Armed Services, made special arrangements to examine and accredit some of the American Dependents' Schools in occupied countries. Following the accreditation of five schools in Germany, requests came for similar service to other schools established for the education of children of military personnel stationed overseas.

In 1950, a formal process for accreditation of these schools was evolved when the Armed Forces agreed to send NCA visitors biennially to evaluate the programs of these institutions and submit their official reports to the Commission on Secondary Schools. Visitors use the same NCA policies and criteria which are applied to NCA member institutions in the 19-state region within the United States.

There are presently 56 American Dependents' High Schools (see July, 1960 *QUARTERLY* for complete list) in 19 countries in Continental Europe, the Far East, Africa, Newfoundland, Labrador, and Pacific and Caribbean islands.

Last fall, the four NCA representatives, comprising two teams, who visited approximately one-half of these Dependents' Schools, were: J. Fred Murphy, NCA Vice

President and Principal of Broad Ripple High School, Indianapolis, Indiana; H. E. Mueller, Missouri NCA State Chairman and Associate Director of Admissions, University of Missouri; Rex L. Liebenberg, of the Wisconsin State Department of Public Instruction, and Loren S. Curtis, Superintendent of Casa Grande, Arizona, High School.

Formal reports of their visits have been submitted to the Commission on Secondary Schools; informal accounts of their experiences and observations are presented here.

ENGLAND, FRANCE, GERMANY, SPAIN,
MOROCCO, LIBYA, TURKEY

*by Messrs. J. Fred Murphy
and H. E. Mueller*

OUR VISITING TEAM evaluated twelve secondary schools in the European theater between October 5 and November 10, 1960. Ten of the twelve schools are located at Air Force installations; two, at Naval bases.

The itinerary included schools at Nowasseur and Port Lyautey in Morocco; Rota, Spain; Chateauroux, France; Wheelus Air Force Base, Libya; Izmir and Ankara, Turkey; Wiesbaden and Bitburg, Germany; Lakenheath and London, England; and Dreux, France.

After a one-day briefing in Washington, D. C. and Weisbaden, Germany, the tour of duty proceeded under the travel orders of the Navy. Civilian school and military officials planned all details of the itinerary with dispatch and efficiency of operation.

Each dependents' school in Europe has its own basic philosophy and set of objectives based upon the pupil population served. In each institution most pupils plan to enter colleges and universities in the States.

Some of the most interesting and important observations which educators may make in the dependents' schools relate to certain aspects of school organization. Unlike the secondary schools in the States, several of those inspected had dormitories for eligible pupils. We visited a school housing approximately 25 percent of the

pupils in dormitories, while in another instance we visited a school housing approximately 90 percent of the pupils in dormitories. The dormitories are desirable facilities and have administrative and supervisory organizations which make them functional. Pupils are not only happy in a dormitory set-up but are very convincing in pointing out that they have the opportunity to develop better study habits than had been true in the traditional secondary school. Parents of pupils housed in dormitories are in close contact and communication with the school at all times. School-home problems were held at a minimum. In some schools pupils are permitted to return home on weekends and transportation is furnished by the military. In other schools, pupils are situated so that they remain at the school for seven days and nights per week, thus returning home only for extended vacation periods.

Each dependents' school is organized so that the school board can govern the adoption of formal organizational policies. However, it is noteworthy that because the school board is composed of parents of the pupils in the dependents' school, the adopted policies are based upon the recommendations of the civilian school officials. The intensity of the desire that the dependents' school have an excellent educational program is displayed by members of the school boards as well as the civilian school officials.

The coordinated plan of having the dependents' schools properly supervised from a central office—e.g., Air Force Schools' Central Office is located at Wiesbaden—serves as a great advantage in the continuing development of proper budgetary and personnel procedures. Suggested courses of study are developed through the central office personnel working with the dependents' schools. The courses of study are then properly used in the dependents' schools.

The demonstrated desire of members of parent organizations to assist the dependents' schools are translated into real activities with educational values.

Administrative and teacher personnel are generally well qualified as specified by North Central policies and criteria. The procedure followed of securing teachers with some experience in the States as well as adequate formal education assures the schools of having able teachers. Superintendents who serve the schools work cooperatively with the principals; thus teaching is more effective. The opportunity for the teaching personnel to have broad experiences through travel and through the opportunity to teach in different localities provides a means of in-service education which, for the most part, is not available in the States.

Undoubtedly there are many implications in the statements made concerning our observations. Our visits helped us to feel that the dependents' schools are efficient. More specifically, we were impressed with:

1. The splendid working relationships which existed between the military and civilian school personnel.
2. The efficient administration and supervision of the educational program both from the standpoint of the central office and the local dependents' schools.
3. The identifiable good morale of most staff members.
4. The provision for a guidance and counseling program which would give ample time to both individual and group counseling, as well as appropriate testing.
5. The development and use of a permanent record system which met the needs of the pupils in each school.
6. The apparent existence of excellent discipline on the part of pupils because of the splendid cooperation given civilian school officials by the military personnel.
7. The qualified librarians, who, for the most part, have their libraries well organized and equipped. As a result, there is a noticeable usage made of the libraries by both pupils and teachers. In addition, the military

officials on each installation made available to the pupils the libraries developed for the service men.

8. The food services available to pupils. These are both efficient and economical. Certain schools are improving their food services this school year.
9. The dormitories, each of which is supervised by competent counselors. The appropriate rules and regulations for all pupils housed in dormitories contribute to educational achievement.

The dependents' schools are very similar to the schools in the States. As the staff attempts to continue an improvement of the educational program, certain problems become more pronounced. The problems most common are:

1. To find expeditious ways to secure the necessary physical facilities, equipment, furniture and instructional supplies to accommodate the needs of all the pupils served.
2. To provide a continuing follow-up program of the pupils, particularly in view of the fact that their length of enrollment may be limited due to brief assignments of their parents to a given installation or governmental responsibility.
3. To guarantee longer tenure for staff members.
4. To secure more competent clerical and custodial help.

In summary, we are impressed favorably with the educational programs in the Air Force and Navy Dependents' Schools which we visited. There has been identifiable progress in the development of such programs during the two years' interim since the North Central Association representatives last appraised the schools. We are convinced that as long as civilian school personnel and military officials work together as was demonstrated to us, the Dependents' Schools program will provide adequate educational opportunities for the boys and girls enrolled in these institutions. The North Central Associa-

tion should feel honored in having the opportunity to assist in stimulating the Dependents' Schools to reach the standards established by the policies and criteria used for evaluating secondary schools.

GERMANY, FRANCE, ETHIOPIA

*by Messrs. Liebenberg
and Curtis*

FOR A FOUR-WEEK period last October, we were privileged to serve as an NCA team, in visiting American Dependents' High Schools in Europe and Africa. We visited U. S. Army supported schools in Bad Kreuznach, Baumholder, Heidelberg, Kaiserslautern, Karlsruhe, and Mannheim in Germany; in Orleans, Paris, Poitiers, and Verdun in France; and in Asmara, Ethiopia. All of these schools are under the general direction of Dr. John P. Steele, Director, U. S. Army Dependents' Education Group, and his staff, with headquarters in Karlsruhe, Germany. District Superintendents and their staff also provide support to the schools of an area. While we were concerned only with secondary schools, it should be recognized that the total program includes both elementary and secondary school programs. The schools which we visited were among those under the supervision of four District Superintendents. It is normal procedure for one-half of the American Dependents High Schools to be visited each year for the NCA. Dr. Steele or a member of his staff, the District Superintendent, and military representatives of both Dr. Steele's office and U. S. Army Headquarters for Europe accompanied us on our visits to each school.

All of these schools were organized as six-year, junior-senior high schools. Those in Germany ranged in size from 250 to 1400 and the average enrollment was 665; in France the range was from about 350 to 900 with an average of about 600; while the one in Asmara had about 90 students enrolled. The students we saw were only a part of some 130,000 children in American Dependents' Schools overseas. Of these 60,000 are in Army schools in Europe and

Africa under the direction of Dr. Steele. About two-thirds of this number are in grades K-6 and one-third in grades 7-12, reflecting the greater number of children of younger ages among the dependents. Growth has been at the rate of about 7,000 students per year.

The sincerity and concern of military personnel for the support of a good school program, at each level from the General in the Headquarters Office to the Post Commanders and to the School Service Officers, was an early and continued impression. Though money devoted to the education of dependents came from the overall military budgets, we found much devotion and dedication to good educational programs. Much ingenuity was shown in using available money effectively in improving education. Schools had the support of active Parent-Teacher Associations in the several communities, and rank or rate differences of military personnel appeared to be inconsequential as parents generally were concerned with the educational welfare of their boys and girls.

Recruiting teams from Dr. Steele's office seem to have been successful in interesting capable teachers and administrators in serving in these dependents' schools. Applicants have been sufficient in number to permit a selection process that has largely eliminated less capable teachers. Staff members were observed to be sincere and earnest in their responsibilities. A number of them displayed outstanding concern for helping transferring students to make adjustments to a new school situation as rapidly as possible. As a military expediency, transfers of military personnel are made throughout the year. We talked with children whose educational experience in 12 or 13 years of schooling had included attendance in from 15 to as high as 22 different schools. But, such a variety of experiences appeared to have helped students to adjust rather readily to new situations. We found, also, that they tried to be most helpful to new students as they enrolled.

Teacher salaries are based on National Education Association averages for cities

with populations of 100,000 or above. These prove to be quite attractive when it is recognized that in addition to this basic salary the teacher and his family are provided with transportation from the United States to the school and return; that military housing or a housing allowance is provided; and that military benefits such as post exchange, commissary, medical, dental, and theater privileges are also provided.

Another impression which I had not anticipated concerned the cosmopolitanism of these schools. In addition to including teachers from all parts of the United States, many schools included teachers who were native to the countries in which the schools were located. Many of these served as foreign language teachers and they had fine familiarity with the languages being taught. A single class in one school was observed to include students of Negro, Oriental, Hawaiian, American Indian, and Mexican extraction in addition to students from various regions of the United States.

Change was a keynote of virtually all of these schools. Teacher turnover as well as administrative turnover is higher than would be expected in stateside schools of comparable sizes. While some teachers come on leaves of absence for one or two years, there are some who have been teaching in these overseas schools for longer periods of time. There is some tendency for those who have been in Europe for a number of years to request changes in location in order to broaden their overseas experiences. Students, also, change in significant numbers from year to year and throughout each year as the military assignments of their parents change.

Buildings which house the school programs generally surpassed expectations for substantial buildings were found. In some places there had been the need to supplement the permanent buildings with some temporary buildings, but these were found to house a very small part of the total educational program. It was evident that building needs were present as a result of enrollment growths in virtually

all schools, for most schools had either just moved into some additional building space or were in the process of readying additional space for occupancy. Gymnasiums were of adequate size but in many cases the shower, locker, and dressing room facilities were inadequate for high school use since they had generally been built for relatively small groups of military personnel of one sex.

As in our stateside high schools new emphasis was being placed on improved facilities for science laboratory instruction and many fine installations had recently been made. Splendid equipment was available for science laboratory and demonstration work. Facilities and equipment for homemaking instruction and for woodwork shops were found to be very good.

It appeared that there had been considerable standardization of the curriculum of these high schools, but this may be desirable when one recognizes the number of students that transfer from one school to another during and between year terms. The larger schools generally took advantage of their size to expand their offerings in keeping with student interests, present and future needs, and capacities.

The library book collections and services gave a most favorable impression. Generous budgets, careful selection, central cataloging and processing, and the general newness of the collections provided students and teachers with splendid library resources. Strip film libraries of fine size were maintained and cataloged in each high school library. Educational sound films were distributed to schools, on request, from a sizeable collection at the headquarters offices. A number of schools were observed to be making good use of local resource personnel and materials as a means of enriching their programs. The breadth of student experiences in these schools provided a significant resource which was often advantageously "tapped."

The administrators of schools including dormitory facilities showed active concern for making dormitory life an integral part of the total educational program. Whenever possible students were transported to

their homes after school on Friday and were returned to the dormitories on Sunday evening by school bus. For day and dormitory students, military buses served as school buses in transportation programs that were often extensive.

Students, as dependents, were eligible to receive major health services through military hospitals. The parent-teacher associations of some schools paid for a full-time nurse to be on duty in their schools. In other cases a group of mothers, (including qualified nurses in a number of cases), organized themselves to provide continuous nursing service for a school. School lunch programs were provided in most schools. Since these schools are not eligible to receive a federal subsidy on school lunches, or to receive surplus foods or low cost milk, lunch charges were higher than in stateside schools; but good lunch service was provided to students.

Schools had rather extensive activity and club programs including school paper and annual. Interscholastic athletic programs were provided even though distances to competing schools were sometimes significant. Intramural programs were being developed in some schools.

Guidance and counseling services were receiving rapid expansion as a result of the employment of well qualified personnel. Comprehensive testing programs were organized to provide much information about students. Files of college catalogs and other careers materials were maintained for student and staff reference. We sensed a strong interest among students in wanting to get a college education, and it was reported that more than 50 percent were college bound. This interest was reflected in the class schedules, which showed themselves to include a heavy preponderance of academic work. Home-making, shop, and art were not heavily elected in most schools. While plenty of instruments were available for instrumental music, this field seemed to suffer somewhat from the more transient nature of

the student body and from the scheduling problems in the school program.

One might think that discipline would be a problem in a school situation with a high transiency factor of both staff and students; but conduct, discipline, and morale appeared to be very high among both students and staff. Evidently students had learned to adjust to changes; they came from military homes that provided basic discipline; and they appeared to share the concern of their parents for getting the best education which could be obtained. They explained, also, that by living in the relatively sheltered environment of military communities, and without the detraction of television as they had known it in the States, that they found themselves doing much more home study than they did while attending stateside schools. They also spoke highly of the motivation and challenges provided by their teachers.

It was my feeling that students, in the American Dependents' High Schools which were visited, were enjoying generally good education opportunities and that they were attempting to take advantage of them.

INSTITUTE FOR JUNIOR COLLEGES

A GRANT from W. K. Kellogg Foundation will make possible the first summer North Central Area Institute for Junior College presidents and deans.

The institute, scheduled for July 10-21, 1961 on the Michigan State University campus, will investigate the topic, "Administering the Technical Education Program." The faculty will come from the three public-supported Michigan universities, as well as from the field. Stipends in the amount of \$150.00 are available.

Additional information and applications may be obtained from Dr. George L. Hall, Center for Higher Education, University of Michigan, Ann Arbor, Michigan.

WILLIAM K. SELDEN AND WILLIAM G. LAND*
Washington, D. C.

The Forgotten Colleges

AS A RESULT of increasing grants to colleges and universities both by corporations and by government agencies, increased attention is being directed by non-educators to the status of educational institutions in terms of accreditation. In earlier years, when fewer institutions were accredited and when aptitude and achievement tests had not been refined to their present extent, accreditation by the regional associations was employed much more frequently as a basis for deciding the admissibility of candidates and the amount of transfer credit which might be granted by institutions to entering students. For these purposes accreditation is still a factor of importance, but much less so in comparison to the value currently assigned to it by prospective donors, corporation officers, government officials, as well as the general public.

In 1955, when the Ford Foundation announced its munificent grant of 260 million dollars for improvement in faculty salaries, these awards were made to "each of the 615 private, *regionally accredited*, four-year colleges and universities in the United States." The non-regionally accredited institutions considered themselves neglected as a result of their exclusion, and many applied to themselves the phrase—"the forgotten colleges." Where are these forgotten colleges? How many are there? How many have attained regional accreditation since the eventful year of 1955? How rapidly may the present non-accredited colleges anticipate approval and membership in the regional associations? This article is intended to provide some answers to these and other

similar questions which are frequently raised about non-accredited institutions.

THE UNACCREDITED COLLEGES

The 1960-61 issue of the *Directory of Higher Education*, compiled by the United States Office of Education, lists 2,021 post-secondary institutions (excluding those in the Canal Zone, Guam and Puerto Rico) of which 651, or 32.3 percent are listed as not accredited by any regional association at the time of issuance of the publication. Institutions accredited by more than one association or incorporating separately accredited divisions are counted only once.

Of the 651 non-regionally accredited institutions, 235 are junior colleges and eight others are non-degree granting. An estimated 310 are two- to four-year institutions devoted primarily to specialized programs of study in the fields of art, business, health, law, music religion and technical or semi-engineering training, 192 of which are accredited by one or more national professional agencies. The remaining 98, or 15 percent, of the non-regionally accredited institutions include 18 which are devoted primarily to teacher training. Thus only 80 out of a total of 2,021 can be said to be liberal arts, degree granting, privately supported, non-regionally accredited institutions—the so-called forgotten colleges. These 80 comprise 4.0 percent of the institutions listed in the *Directory*, or 5.6 percent of the 1,431 offering more than a two-year program, or 11.1 percent of the 717 four-year institutions which the Office of Education classified in 1957-58 for statistical purposes as liberal arts colleges. It should be noted that there are in addition a few institutions which will likely attain regional

* Mr. Selden is Executive Secretary of the National Commission on Accrediting; Mr. Land is an educational consultant in Washington—Editor.

accreditation before they are included in the *Directory*.

These 80 liberal arts colleges are divided among the areas covered by the regional associations as follows: Middle States Association 12; New England Association 12; North Central Association 33; Northwest Association 3 (not including 3 in California)*; Southern Association 16; and Western College Association 4. On the basis of information that is available about them and on the basis of past practices of the various regional associations, an estimate was made of the number of these colleges which might be expected to attain regional accreditation within the next few years. In the period since the 1960-61 *Directory* was prepared through December 1960 three of these 80 liberal arts institutions were granted accreditation, while one discontinued operation. For the remainder it is predicted that approximately 12 might anticipate accreditation within the next year, another 14 within three years, and 21 more within five years. The remaining 29 have shown either little tangible disposition to seek regional accreditation, or there is little indication that they could attain this status if they so desired. It is interesting to note that since 1955, the year of the large Ford Foundation grants, slightly less than one hundred institutions which otherwise would have qualified for these awards have been accredited by the regional associations. As a result of this study one might well question the application of the term, forgotten colleges, to a group of institutions which have been and will likely continue to be accredited at such a rate.

CHANGE IN THE PURPOSE OF ACCREDITING

What assumptions might one draw from an analysis of these statistics? These figures suggest that the era in which regional accreditation is utilized *primarily* as a

means of signifying minimal academic competence is coming to an end, at least for undergraduate liberal arts colleges. If by 1966 only 29, or less than 2.5 percent of the 717 four-year liberal arts colleges remain unaccredited by regional associations, it will be apparent that the original purpose of accreditation for this type of institution will have been largely fulfilled. This situation has undoubtedly been a major, although unrecognized factor in the growing emphasis in accreditation on institutional self-improvement.

These figures further suggest that since relatively few liberal arts colleges and teachers colleges now remain unaccredited the proportion of other types of institutions seeking initial accreditation will surely increase. Accreditation of institutions of higher education was originally limited to degree granting liberal arts colleges and universities. After considerable delay and resistance accreditation was extended to include teachers colleges and junior colleges. More recently, provisions have been made to permit the consideration of specialized institutions provided they offer a basic amount of liberal education themselves or require that it be presented by the candidate for graduation. This policy now embraces art schools, conservatories of music, technical institutes and seminaries, as well as such institutions as independent medical schools. The 310 specialized institutions not accredited by regional associations present a problem to these associations because of the numbers and the diversity of specialization among them. In turn the six regional associations with their different requirements present a dilemma to the specialized institutions. For example, the National Association of Schools of Art, an accrediting agency itself, finds it difficult to assist and advise its small but national membership in matters of regional accreditation when no two of the associations have the same requirements. If closer cooperation and clearer understanding could be developed among the regional associations and the national professional organizations, some of the pres-

* The Northwest Association continues to include in its membership a few institutions in California which sought and obtained accreditation by the Northwest Association before the Western College Association became an accrediting agency.

ent uncertainties and difficulties for these specialized institutions might well be lessened.

Although junior colleges have been eligible for regional accreditation much longer than the specialized institutions, they will comprise an almost equally large number of the initial accreditations during the coming years. The present 235 non-regionally accredited junior colleges is far from a static figure in view of the rate at which junior colleges are presently being established. What is more, the proportion of junior colleges seeking regional accreditation is bound to increase. In the past they have not felt the need of regional accreditation nor appreciated its advantages, especially when they already had official recognition by the state authorities, when their graduates were eligible to enter the state universities, and when the majority of junior colleges, being tax supported, were not likely to be considered for financial grants from private foundations. However, with growing pressures for accreditation of junior colleges by national professional agencies, most of which require regional accreditation as a prerequisite, in addition to pressures from the public, there will be an increasing number of junior colleges seeking regional recognition. It is even possible that federal aid for junior colleges might require regional approval as a minimum requirement.

ACCREDITATION OF GRADUATE WORK

In addition to requests for initial accreditation from specialized institutions and junior colleges, the regional associations may expect to receive an increasing number of requests for review from accredited institutions wishing approval for advanced programs. Additional statistics from the Office of Education support this prediction. In 1949-50, for instance, 144 liberal arts colleges along awarded 4,227 masters' degrees, whereas by 1957-58 a total of 190 liberal arts colleges granted 9,157 masters' degrees. In this period of less than a decade there was an increase of 116 percent in the number of these mas-

ters' degrees and an increase of 32 percent in the number of liberal arts colleges extending their programs beyond the bachelors' level. Although these figures do not include other types of institutions beginning to award advanced degrees, they do point clearly to a situation with which regional associations are confronted.

With the social demand for more highly educated and trained persons there is a growing need for a larger number of institutions offering work beyond the bachelors' degree. At the same time one might question whether in their haste to enter into advanced levels of education some institutions already stretched thin by a lack of financial and physical resources and a dearth of adequately qualified faculty members may not be chewing off more than they can swallow. An attempt to meet a social need and a desire to elevate themselves into the ranks of graduate schools, motives excellent in themselves, are not sufficient reasons for colleges which are already members of the regional associations to be accredited freely by these associations for graduate studies. The regional associations have an obligation to insist upon quality, especially at the graduate level.

It is at this point that the accrediting agencies face a dilemma. They are under censure, frequently unfairly, for the criteria which they employ in accrediting liberal arts colleges and universities. They are under criticism by associations of specialized schools for the bases on which these schools are granted membership in the regional associations. They are often condemned by the universities just for the thought of looking at the graduate schools for purposes of accreditation. In other words, on one side the accrediting agencies are blamed for what they do, and on the other side they are berated for what they don't do.

Might it not be said that the colleges are not forgotten but that the continuing problems of accrediting associations are—particularly by those who are most prone to condemn!

February 28, 1961

Articulation: A Look at the Twelve Year Program*

AMERICAN EDUCATION may be likened unto a huge multi-stage rocket capable of tremendous output. Each of its major educational levels, like the powerful stages of the rocket, *can deliver* an almost inconceivable teaching-learning thrust. Together these levels *may yield* a force far exceeding that of an untold number of rockets.

You perhaps noted that I stressed the terms *can deliver* and *may yield*. This full potential is seldom if ever realized, and much power is generally lost through faulty linkage in our education transmission system. Consequently, in education as in rocketry, a crucial concern is that of the critical intervals between successive power surges. I am pleased to speak to this topic—commonly called articulation—as it relates to the twelve-year program. Articulation, as I reflect on it, appears as a principal focus of failure in American education.

If private, creative enterprise were operated with no more articulation and coordination than typically characterizes American education, it would soon fail or go bankrupt. The assembly of an automobile, the farming of a tract of land, the financing of a capital investment, the construction of a home, and the orchestration of a musical composition, as examples, require careful planning and persistent evaluation aimed at efficiency

and relatedness of effort. Millions of dollars are spent annually for this type of articulation.

But what of the longer and more complex process of educating millions of boys and girls and young men and women? Can we honestly deny that many people (including some educators) seem content with relatively low educational efficiency; that they appear unaware of or accustomed to the staggering economic, personal, and social losses which result from high dropout rates, particularly at the college level; and that they seem reasonably well satisfied with a somewhat less-than-first-rate educational product, namely the typical college graduate?

I do not mean to sound harsh or unreasonable, nor are my remarks a prophecy of doom. My words, however, are intended as a reminder that responsible educational leaders must be increasingly mindful of these shortcomings and progressively more responsive to the legitimate needs and pressures of the society they serve. And they must give effective leadership to the resultant educational endeavor.

Articulation that is insufficient in quantity or lacking in quality is a threat to our educational structure and function. This is especially crucial in the case of superior and talented students and at the high school and college levels.¹ Under the influence of mounting enrollments in-

* Delivered at the Winter Workshop for High School Principals, sponsored by the Minnesota State NCA Committee and the Minnesota Association of Secondary School Principals, at the University of Minnesota, January 10, 1961. Dr. Romine is Dean of the School of Education at the University of Colorado and at the time of the Workshop was President of the North Central Association of Colleges and Secondary Schools—Editor.

¹ The improvement of articulation between high schools and colleges is a basic purpose of the North Central Association. Copies of "An Analysis of Problems of Articulation and Suggestions for Action," (the report of the 1960 NCA Annual Meeting) are available from Secretary's Office, North Central Association, 5835 Kimbark Avenue, Chicago 37, Illinois.

creasing migration and a serious teacher shortage at all levels, the situation, very unfortunately, may get worse before it gets better. Misunderstanding, suspicion, fear, and blame frequently characterize the relationships of teachers and administrators across grade levels and subject matter boundaries and among institutions.

It is simply not enough for each grade level to do a good job, independently, if indeed such is even possible. The efforts of all levels should be consonant and strong. No level can be as effective independently as it can be in concert with all others. And on each level relatedness of educational experience should bridge the boundaries of subject areas.

SOME OBSERVATIONS

Rather than attempt to touch briefly on all of the factors influencing articulation and the twelve year program, I would like to stress a few fundamental points that are sometimes neglected. Let us begin with the student himself.

The one and only common, singular, and dynamic element extending throughout the twelve-year program, and beyond, is the learner. In some K-12 programs recognition of this fact is apparent; in most of them it is not. In almost none of the written courses of study do I find the sort of attention that is merited. As an illustration we are not, it seems to me, doing enough with independent student learning. Yet, in the final analysis, it is only the learner who can relate and reconstruct his many and varied experiences through which articulation is achieved. Most of what we do focuses on the environment *around* the learner. We need to do more about those things *within* the learner.

A second factor that receives too little basic attention is that of the classroom teacher. The quality of the educational program will never exceed the caliber of those who staff it, and our success in keeping these persons performing on progressively higher levels. The minimal levels with which we appear to be satisfied

are too low to meet our survival needs. We should include school administrators in these remarks, also, for they have an inescapable impact, for good or ill, on the teacher and on other aspects of the educational program.

We may alter schedules, develop K-12 curriculum guides, determine articulation policies, construct longitudinal examinations, reorganize grade levels, establish ungraded rooms and do all manner of things in an effort to relate the several levels of the educational program. Ultimately and at the operational level, however, the success of these things is dependent upon teachers and administrators. It is one thing, for example, to construct a curriculum guide. We may succeed in doing this very well. It is quite another matter to secure its proper utilization by teachers and students. We should never forget that the *real* curriculum consists of the ongoing activity within the program and within the individual; it is not the curriculum guide itself.

As a third concern, let us look at curriculum organization and at the manner in which this is developed. In too few schools is the curriculum viewed in its entirety as modification is brought about. Even within a single field the number of school systems in which a K-12 program has been developed is small. A piecemeal approach—grade by grade or perhaps level by level (such as elementary, junior high, or senior high) is much more commonly employed. In the great majority the individual teacher works largely on his own without guidance other than an adopted text.

With the advent of the Advanced Placement Program, as an illustration, we have improved the quality of education for some pupils at one level. This is highly commendable. In doing so, however, we may have dislocated both courses and pupils at other levels because of our failure to see clearly the whole picture. Courses are not infrequently "pushed" down into junior high schools in this process without any real appraisal of their value at any level. High school students pursuing college level courses in their

senior year often subsequently find the succeeding courses on the freshman college level to be dull, repetitious, and poorly taught. All of this suggests the need for curriculum planning extending beyond the K-12 concept to embrace post-secondary school education, collegiate and otherwise. It calls, too, for planning that embraces all segments of the secondary school population.

In too many cases our curriculum guides deal heavily with what Alfred North Whitehead calls "inert ideas." Some courses of study are little more than a translation from a basic text or two with limited elaboration in terms of objectives and resources that really modified the original not at all.

WHAT CAN BE DONE?

I should like now to turn from these three foci of concern—students, teachers and administrators, and curriculum organization to offer some suggestions. In so doing it is not my intent to neglect administrative leadership, guidance and counseling, communications between institutions, administrative provisions, and the other factors you can think of. If there are questions about these later I shall be glad to discuss them.

As one action bearing on the major concerns discussed, I would suggest that we place greater emphasis on learning and relatively less on teaching in our efforts to improve education and articulation. One object of teaching a student is to enable him to get along without the teacher. As he progresses through school, the student—all students within the limitations they have—should be able to accomplish progressively more on his own; and greater responsibility for such learning should be placed upon the individual for his own progress, with periodic evaluation to provide measures of progress. Our schedules today tend to hamstring arrangements that would facilitate increased individual library and laboratory work. Accreditation sometimes impedes progress and is often used as an excuse. Educational facilities sometimes dis-

courage such activities as well. But much more could be done without radical changes in many schools.

To be somewhat more specific for a moment, is it not reasonable to give greater attention than is typical to reading skill in junior and senior high school? Rapid and comprehensive reading is essential to independent study. I am convinced from my own and the experiences others have shared with me that all learning would proceed more easily, with greater student interest and enthusiasm, with increased meaning and relatedness, and with more visibly retained results if we dealt effectively with reading in high school, and even in college. We cannot fairly or wisely rely on the elementary schools to do the total job—not with superior students, not with average students, not with inferior students. And we must be careful not to categorize students rigidly into groups and, as a consequence, expect too little of some and too much of others.

Many teacher education institutions today are not sufficiently selective. This is one point at which we must improve the quality of our teaching profession. As one who heads up a program of teacher education, I can tell you it is not easy, and one can list many factors beyond university control. But it can be done and with gratifying results. As merely one measure—our students in the newly-organized School of Education at the University of Colorado now have the highest grade-point averages of all undergraduates.

The public schools must support selective admissions programs at a level higher than commonly found. Improved initial recruitment, superior student teaching and internship experiences, and rewarding job opportunities bear directly upon the quality of person and program. The college cannot do the job alone.

Coupled with evaluation and inservice education cooperatively involving collegiate institutions and schools, teachers need greater inducement to superior performance. To put it bluntly, I am advocating merit rating as a basis of salary.

determination. Single salary schedules and teacher tenure have helped the teaching profession. Increasingly, however, they have promoted, and under the pressure of a teacher shortage will continue to promote, mediocrity. It is past the time, I believe, that we identify and recognize the superior teacher as well as the superior learner. This is a grave responsibility which the teaching profession should face realistically. It is a price we must pay for excellence.

What I am trying to say boils down to this. It is chiefly through the classroom teacher that the purposes and program of education are put into operation. To secure the best people possible, to educate them better than we have done before in college and on the job, and to induce them to perform on the highest levels possible seem obvious to me as vital steps that must be taken if education is to be effectively and efficiently done.

About my third point, curricular organization, less probably needs to be said.

Increasing cooperation in curriculum planning on a K-13 or K-14 basis is called for. Our initial efforts on this at the University of Colorado are most promising. I regard this curriculum activity principally as the sphere of professionals, namely teachers and other educational workers. Curriculum guides should go beyond inert ideas to larger and expanding concepts and should enlarge upon the approaches and materials to be used in teaching and learning, especially the latter.

IN CONCLUSION

A concluding thought is found in a short quotation from Abraham Lincoln. Said he, "We can succeed only in concert. It is not can any of us imagine better, but can we all do better." Our nation can ill afford the loss of talent, be it through denial of educational opportunity or waste of it. This is the unique challenge that we must meet by increasingly improved articulation in and beyond the twelve-year program.

Some Aspects of the Comprehensive Secondary School

"SOME ASPECTS of the Comprehensive Secondary School" was the topic of the Ninth Annual Meeting of the North Central Association in Illinois. College and university presidents, University of Illinois faculty, superintendents and secondary school principals heard the three presentations included in this issue: "We Need to Keep Our Educational Feet on the Ground," "An Instrument of Culture," and "Adequate Financial Support and Efficient Organization." Two other presentations were "The Counseling and Guidance Program is Central" by Professor Merle M. Ohlsen and "The Program of Studies Should Reflect the Purposes to be Served," by Professor Harold C. Hand.

Today there is a grave necessity for meeting the challenge of totalitarianism without sacrificing our own ideals. Dean Alonzo G. Grace points out that this requires understanding of the real aim and spirit of the American educational system, constant evaluation of our school programs, and willingness to depart from traditional patterns when new conditions require new techniques. He warns, how-

ever, against crash programs which result from "legislation by hysteria, unfounded criticism of men and institutions, or disunity through rumor," and he urges us to "keep our educational feet on the ground."

Most certainly one must have a basic notion of the place of secondary education in a democratic society. Not having such tends to cause people to miss the real purpose of education, to make fallacious comparisons, to see parts of the program isolated from the total purpose, and to lose sight and perspective of the needs of our culture. Professor Harry S. Broudy presents this background most effectively.

The comprehensive school is costly—all effective education is costly. People must realize this and be shown the wisdom of the investment if our democracy survives. People must, however, realize the inefficiency, both educationally and financially, of small school districts. The smallness and inefficiency of far too many school districts in our country is indefensible. Adequate finance for districts of a defensible size is basic to the success of the comprehensive school. Professor William P. McLure sets forth some fundamental ideas relative to this serious problem in education.

* Mr. Fisher is Coordinator, School-University Articulation, University of Illinois and Chairman of the Illinois NCA State Committee—Editor.

We Need to Keep Our Educational Feet on the Ground

Alonzo G. Grace, Dean, College of Education, University of Illinois

It should not take a crisis to initiate the educational policies required to advance our culture and to preserve and improve our way of life. Unfortunately, this appears to be the case. Soviet penetration of outer space, irrespective of our delayed effort in this direction, had an immediate effect on the people of the United States and the educational system did not escape the impact of this accomplishment.

The decade of the fifties should have been a preparatory period for the critical generation ahead. Our complacency, in the face of the realistic menace which was plainly evident, suddenly was challenged by the menace itself. Thus we discovered man-power shortages, the removal of which took the form of crash programs along with a slowly developing long-term plan. It is essential that we understand the nature of totalitarianism and the obligation to meet the challenge without forfeiting ideals to which we subscribe.

Many American educators over a long period of time have advocated and pressed for more attention to technical education, the education of the gifted, the recognition of the dignity of work, increased enrollments in mathematics, science, language; on the other hand, we cannot be complacent and we should not succumb to fear as the basis of educational progress. Along with these stated needs, our American people must realize that values, independent critical thinking, the right to private judgment, social justice and humanity must continue to be a major concern in our educational system. I am of the opinion that those who advocate looking toward the Soviet orbit for educational inspiration or those who would adopt the German system of educating an elite, need to probe more deeply into the real aim and spirit underlying these educational systems.

THE AIM AND SPIRIT OF EDUCATION— TWO BRANDS

Education the world over is involved in new relationships between the individual, the State and groups within the State. The national aims of education, therefore, are of deep concern and importance to men and nations. Whether the education of the individual be for his ultimate subordination and subservience to the State, or whether man, by nature free, shall be educated as master of his own destiny and progenitor of law and order, humanity, social justice and everlasting peace represent the extremes.

"The first aim of education," comments the London *Daily Mirror*, "is to get our values right. We must understand from the start that we have to develop, not more machine-like aptitudes, but the whole worth of human beings. Intelligence needs to be directed by such qualities of character as goodness, kindness and courage. If not, we might produce a Dr. Goebbels but we would have forgotten our civilization." This is a fair statement of the aim of education as conceived by nations interested in free men in a free society. It is not in the Soviet conception.

I returned to the United States from an experience abroad firmly convinced on several aspects of the education in the United States. Six of these are:

1. That the United States is engaged in the greatest experiment in mass education as opposed to totalitarian indoctrination ever to be engaged in by any country at any time in history. This fact, however, should not retard any effort to improve the system. This merely says that we should not reflect a satisfied complacent acceptance of the whole educational program without constant self criticism.

2. That there are critics of American education at home and abroad. Constructive criticism by intellectually honest individuals cannot easily be dismissed by those who seek the advancement of education. On the other hand, criticism not founded on fact but based on some unrevealed ulterior motive or on the outright opposition to the principle of universal education is detrimental to the best interests of this country.
3. That freedom, the right to private judgment, and the dissemination of truth no longer are possessions of the individuals under the totalitarian state. The individual is a servant of the state and the party is the master of both the state and the citizens therein.
4. That there will be no shortage of engineers or any other profession or manpower need in the Soviet orbit, primarily because manpower needs are directed by the state. Individual choice is not possible under these conditions.
5. That most of our American people do not have any clear ideas concerning the basic principles underlying the American educational system. Neither are these understood by many educators. There are seven principles which we should thoroughly understand if we would keep this system great.
 - (a) The principle of universality—this is education of all the children of all the people, with this amendment—within the limits of their ability.
 - (b) Equal opportunity for education and this does not mean equal education for all.
 - (c) The principle of diversity or the right to be different.
 - (d) The principle of decentralization. This recognizes education as a state function. (There is a disturbing trend on the part of many of our citizens who would be willing to establish some

central national agency. The record of ministries of education abroad is too clear for the United States to adopt any such policy.)

- (e) The principle of parental responsibility for providing educational opportunity for children and youth—that is, the parent will send his children to the institution of his choice.
- (f) The taxation of all to finance the educational program.
- (g) Separation of Church and State.
6. That educational costs will increase. The tremendous increase of enrollments in the elementary grades during the past few years is now reflected at the high school level and we already are facing important decisions with respect to who shall go to college now. Educational costs will increase if for no other reason than the fact that more children are being borne and children and youth are staying in school a longer period of time. I am confident that we are not forgetting the necessity of getting full use of the educational dollar without impairing quality, but we do need to be forecasting financial needs ten years hence and I am confident if this were a discussion of finance we could easily come to the conclusion that the ability to pay for our system, the amount of money we invest in it, or the effort we exert to pay, are important but the most difficult area to measure is the "will to pay."

SOME OTHER EDUCATIONAL AGENCIES

The educational system outside of the school has a profound influence on children and youth. Out of 8760 hours in a year, only approximately 1200 hours are spent in school. Thus the exposure to TV, or radio programs, the neighborhood, the home, talk around the breakfast table and many other educational experiences can have an important educational impact on the children and youth. Here is an area requiring intensive research.

Schools cost money. Every child and youth in his school experience should recognize that he is provided with an opportunity by our country, and that he has no right to disregard his responsibility to exert his best effort by virtue of this opportunity. Recently a parent indicated that his child was in the lower half of the graduating class in spite of excellent ability. He was having a difficult time getting him into college on the basis of his record. The truth of the matter was that the parent preferred to relax control to the point where this youth was participating in school and community activities every night in the week and at the expense of his schooling. There needs to be an agreement between parents and educators concerning the meaning of freedom. There is no freedom without discipline, and discipline starts in the home. It is too late to leave this to the schools. A more effective use of freedom, a more intelligent conception of freedom is needed.

SOME AREAS REQUIRING GREATER EMPHASIS

The dignity of work. For many years now, I have been urging our citizens to regard work as having a high place in our value system. We shall become a decadent democratic order if we fail to recognize the dignity of work, both intellectual and manual. The vocational school is not the place to put someone who fails to master Latin. It should not be necessary to go to Europe to find the most skilled tool-makers. There must be a greater respect for and a greater effort on the part of educators to provide for intellectual work and to reconcile the doctrines of interest and effort. There are many unpleasant things to do in life and these may prevail also in a school life. It should not be purposely avoided in order to continue the interest of the student. Neither should these be created by the school authority. The willingness to recognize men for what they are and not for what they do is important. There must be a changed attitude toward work.

Citizenship education. Education for

American citizenship, then, is a joint responsibility of the educational system and the out-of-school educational system. This is a challenge in this divided world. It is a challenge that cannot be ignored if we would remain free.

If we believe the American system to be great and strong, we ought to see to it that our children and youth are made thoroughly familiar with the truth and with the factors that have made this country great. The capitalistic system must and will survive if we are to retain our freedom. I believe the courageous and wise statesmen will insure the elimination of insecurity, of poverty, of lack of access to health and educational resources—all those factors which disturb men and cause them to grasp at any panacea for relief. In many countries it would be a choice between bread and liberty. Having known neither, bread will be the first choice. We must soon recognize that tenement houses, lack of a decent home life, frustration of talent, the lack of educational opportunity, of health service, of play grounds: all of these elements contribute to the education of the citizen and to the weakening of the system of private enterprise. Therefore money spent on this phase of education is an investment in the democratic system.

Constructive citizenship is reflected, not alone in the knowledge we possess, but in our behavior. Our youth should emerge from the educational system with the capacity to think independently, critically and constructively.

Certain basic concepts should be the common property of every American citizen. I present here only three examples:

1. Freedom is not a gift, it must be earned. It came as a result of unbelievable sacrifices on the part of our forebears. It can be lost because we confuse freedom with license. *It can be lost because we abdicate to fear and retreat from reason. Our freedom is less likely to be lost on the battle field than in the classrooms and lecture*

halls of the American educational system.

2. Every citizen has the right to enjoy the full blessings of liberty and our constitutional government based on democratic ideals irrespective of race, creed, nationality, wealth, or political affiliation: This is a concept that we not only should accept but some method must be discovered to so modify human behavior that it will become universally operative.
3. We need to understand better the peoples and cultures of the world. The world needs to understand that the culture of the United States is not represented by the uninhibited and irrepressible tourist, the exported third-class motion picture or by the number of bathrooms per home. We need to learn that out of a world population of some 2,500 million people, about one half are illiterate.

Selection is not undemocratic. The United States will continue to provide educational opportunity for all the children of all the people. We must learn, however, that mass education never should mean grading the whole system down to the lowest common denominator. Each individual should receive the kind and quality of education that will contribute to his own personal happiness and general welfare, and likewise contribute to the security of the nation. There is nothing undemocratic about selection. In meeting a general manpower shortage, we must identify the kind of talent we need and to guide and develop that talent.

CRASH PROGRAMS ARE NOT ENOUGH

The generation of new ideas, the adjustment of institutions to meet the needs of a social system and the individuals

therein, or the modification of policies to meet new conditions frequently requires the development of new techniques or new instruments to secure the required changes. The reverence for tradition, the satisfaction with the present, the reluctance to look beyond the horizon, and perhaps the selfish protection of individual prerogatives, sometimes at the expense of an entire operation, impede progress. Men are able to discover defects in institutions and indicate remedies, but reverence for tradition and the force of habit offer much resistance to required change. I feel confident that we shall face the critical problems courageously and with wisdom and that we shall pioneer, as we presently are doing in certain areas, new frontiers.

The kind of genius we need, however, will not be uncovered overnight by crash programs. The derivation of policy must not result in legislation by hysteria, unfounded criticism of men and institutions, or disunity through rumor. We are doing irreparable damage to ourselves without the aid of those who would destroy us. However, we shall not meet the challenge confronting educators and our educational system by clinging selfishly to old patterns, by protecting vested interests, or by resistance to needed adjustments in policy, organization and program.

The great danger confronting the United States, however, is the trend of events and forces from within our own country which tend to weaken American character. These accomplish exactly what the Communist would desire; namely, disunity, uncertainty, abdication to fear, retreat from reason, confusion, name calling, suspiciousness of men and institutions. *We need to keep our educational feet on the ground.*

The Comprehensive High School as an Instrument of the Culture

Harry S. Broudy, Professor of Education, University of Illinois

The comprehensive high school has justly been called America's distinctive contribution to educational institutions. It was the new world's rebuke to the old world's segregation of classes and masses into separate school systems and its invidious distinctions between those who worked with their hands and those who worked with their brains, or not at all. What the European class system had put asunder, the comprehensive high school proposed to unify by bringing all pupils and all secondary curricula together under one roof. In institutional paraphrase, it was to be one school, indivisible, with equal educational opportunity for all.

The school in our culture is many things. It is an instrument of progress and of action; of persuasion and instruction. But even more, it is an instrument of expression. Our communities, given time enough, express their strengths and weaknesses, their triumphs and failures, their conflicts and compromises in their schools.

Thus it is an open secret that collecting diverse curricula and pupils under one roof does not abolish the prestige differences among them, any more than our society has been able to abolish the prestige difference among the various occupational classes to which the diverse curricula lead. Less obvious perhaps is the social fact that the high school is in its subdued way a battle ground for two conflicting interpretations of the democratic dream—a battle fought quietly and unremittingly in every community every day, but dramatized once every four years by a presidential election.

On one hand, the comprehensive high school reflects the belief that true democracy means equal opportunity to be unequal: opportunity for each individual to develop his own peculiar pattern of capacities. The variety of curricula and

the emphasis on marks and competition express this conception of democracy. On the other hand, the school tries to exemplify the belief that in a true democracy differences should be ironed out whenever possible: that group welfare comes before individual excellence. Thus it tries to avoid making certain distinctions when it comes to assembly programs, athletic events, and clubs, and it makes pronouncements to the effect that given honesty and a sense of social welfare, one pupil is as good as another, one curriculum is as good as another, and one job is as good as another. The surprising thing about this attempt to bring incompatible conceptions together is that both in life and in school we honestly believe that we are bringing it off.

PARADOX OF GENERAL EDUCATION

Nowhere is this attempt to compromise difference so marked and important as in our way of dealing with general education. Despite the impatience of some pupils, parents, and schoolmen, the secondary school has been committed to devoting part of the curriculum to common learnings. But as attendance in secondary schooling approached universality the problem of what to require of all students became so crucial that the American high school was in serious trouble as far back as the Thirties. The post-Sputnik outcries were made in the name of national defense, but their most important effect has been to direct our attention to two paradoxes that have been lying around for quite some time, viz., the Paradox of General Education and its social progenitor, the Paradox of the New Democracy. I turn now to a brief consideration of them.

When we ask what the common learnings in high school should be, there are at least two ways of answering the ques-

tion: One is to prescribe mathematics, language, science, and the humanities. This is the traditional program of general studies. They are abstract and theoretical, bookish and academic, and they have been justified by the argument that they educate Man as Man and prepare him to use ideas, the big ideas of the race, to solve the problems of personal and social living. It is the kind of general education that relies heavily on the hope of transfer of theory to practice.

Another meaning of general education points to the tasks that all the members of the school population can be expected to perform in their adult life. Everyone, for example, has to live in a family, community, state, nation; earn a living, operate or dodge automobiles, buy goods and services and fill, in one way or another, huge gobs of impending leisure.

This is not education for Man with a capital "M," but rather for all men with a small "m." It would make sense on this view of general education to give high priority to driver education, health education, family living, consumer training, mental hygiene, vocational guidance, dating, citizenship performance, and a host of other skills and knowledges that one can reasonably foresee will come in handy to Americans in the next decade, but the presence of which in the curriculum infuriates some of the critics.

Now it happens that to master the theoretical general curriculum requires a relatively high order of abstract intelligence or (to use a less invidious term) scholastic aptitude. In other words, taught in its standard form, this kind of general education precludes the majority of high school pupils from its benefits; it cannot in this form become the design for universal secondary education.

It was natural, therefore, to turn to the second meaning of general education for a curriculum of life tasks that everyone shares and everyone can learn. Such common education is teachable and useful, and it has an air of down-to-earth equalitarianism that satisfies at least one popular interpretation of democracy. It

was no less natural for the American high school to add this kind of instruction to the theoretical-cognitive bookish type in the hope of meeting the needs of non-academic, nonbookish, noncollege bound high school student.

The difficulty with the life-adjustment type of curriculum is, however, that it lacks theoretical power. Whatever it may do to develop skills of living and attitudes towards living, it does not develop systematically that body of concepts we call science, mathematics and the other intellectual disciplines.

We thus come to the full paradox of general education: The more schooling becomes general in one sense, the less general it becomes in another, or to put it differently, the more general the studies become, the less we are likely to achieve common learnings, and the more genuinely common the learnings, the less general they are. As an aftermath of Sputnik the high school has come under enormous pressure to abandon common learnings for the many in favor of general, theoretical education for the few.

PARADOX OF NEW DEMOCRACY

That this is really no solution is indicated when we explore the paradoxical nature of the "new" democracy and the demands it makes on the school. Without our theoreticians, engineers and their subordinate orders of technicians, our earthly paradise of creature comfort would revert to the jungle of primitive life. And more disturbing is the fact that without theoretical and technical supremacy our defense posture is seriously compromised. If it were possible for the Great Powers to confine their rivalry to astronomical adventures, chess, and the Olympic games things would not be half so bad. We could read the box scores daily and have something exciting to talk about. We could enjoy partisanship without destruction, and, as is sometimes claimed for the sport of kings, the rivalry might in time improve the breed in knowledge and temperament, not to speak of material well-being. Unfortunately, we are not

childlike enough to be satisfied with mock battles and not grown up enough to avoid the possibility of real ones. So this is bound to be a dangerous, precarious world, and we cannot do without our defenders either on the launching pad or in the laboratories. Our theoreticians and technicians constitute an elite—a modern set of medicine men and magicians—on whose skill and knowledge we are almost abjectly dependent. In a strange way the more automatic and refined the devices become—the more wonderful automobiles, refrigerators, television, and computers become—the less we as individual consumers have to know to use them, and the greater our dependence on experts to keep them and us in working order.

Never in our history have the many owed so much to the brains of so few, and it is no wonder that prestige and rewards for this class of wonder-workers have increased markedly in the last decade. So the new mass democracy—not the democracy of small independent farmers, craftsmen and shopkeepers—cannot do without a highly developed intellectual elite in every walk of life from space ships to baby care. That a democracy, the foe of the elite, should require elites for its very existence is a paradox indeed.

But not only the handful of top scientists are to be in the magician class. A greater and greater proportion of our workers will be symbolic specialists manipulating ideas and people rather than struggling with raw nature itself. In more modest ways, we shall all be specialists and magicians of a sort. It is expected that the technician level of occupation will be greatly expanded, and it has been pointed out that the post-secondary training of these technicians will require a high school course not very different from that now needed by prospective theoreticians and engineers, i.e., a highly conceptual, theoretical, general education.

Finally, to discharge the duties of citizenship in the new democracy calls for more than vocational competence and

decent adeptness in the tasks of everyday life. It calls for a large public to become sophisticated on such topics as international trade, taxation, monetary policies, comparative cultures, and political science. Just as the economic democracy of the small independent farmer, craftsman, and shopkeeper is fading into history, so the day of face-to-face, cracker-barrel, town meeting democracy is gradually passing into a simpler and perhaps happier past. There are preciously few strictly local issues left, and there are even fewer world events that do not have their local reverberations.

THE DEVELOPING CHALLENGE

If these observations are at all accurate, and they have been made by many serious students of social trends, then the culture is about to make demands on the American high school that the compromises we have worked out in the past may not be able to satisfy. For if the signs are being read aright, the high school is on the verge of being asked by the social order to devise a *common* education that is *general*, i.e., highly symbolic, conceptual, theoretical.

No society in history has ever asked its schools to do anything of the kind—not even Russia—for at no time in history has a nation taken its commitment to both great power and democracy seriously and we have come to or are approaching a point in history when both power and democracy depend on a high order of intellectual competence in the masses as well as the classes.

Should this trend develop we shall be confronted with a challenge in both strategy and tactics. Can we make a theoretical conceptual program of studies teachable to and learnable by the total secondary school population? This is a problem of tactics for our scientists of education, curriculum specialists, and textbook makers. Can the educational profession plan for the changes that cultural demands will make upon the school? This is a problem of strategy for our administrators and policy makers.

In educational as in political statesmanship, nothing takes the place of initiative. To be an effective instrument of the culture, our schools have to be led by men who understand and study the culture and its dynamics. To shape educational policy by reacting to attacks wherever they happen to occur may be as dangerous in education as it has proved to be in other areas of national life.

It may well be that we are facing a major reconstruction of our educational system rather than extensive repairs. To make the secondary school a single track institution for the sole purpose of giving all our young people a high-grade general

education and to develop the 13th and 14th years for specialization would certainly be a major reconstruction of our American school system.

Of this we can be sure; that if schoolmen do not take the initiative in reconstructing the American high school, others will just as they have in the last three years. By shifting here and patching there, we have bought time for a more thoroughgoing appraisal of the role of the American high school in American and world society. But just how much time there is before the next crisis, no one knows so that it would seem wise to behave as if there were very little and none to lose.

Adequate Financial Support and Efficient Organization for the Comprehensive Secondary School

*William P. McLure, Director, Bureau of Educational Research and
Professor of Education, University of Illinois*

The primary consideration of the comprehensive secondary school is the purpose of this institution—its goal, its function in society, the nature and scope of its activity. Everything else—staff, facilities, organization, finance—is contributory to accomplishment of purpose.

Standards for judging the adequacy of organization and finance must be derived from purpose and the extent to which the purpose is accomplished. Organization and finance, along with other contributing factors, account for the gap between the potential goal and the real goal. Our main concerns in the improvement of education, therefore, are to keep the potential goal in proper focus and to adjust the contributing factors for maximum accomplishment.

This simple logic has not been followed in the past in some of these matters as well as it will be needed in the future. For

example, the primary concern in many communities has been to keep the local administrative structure, the district, identified with the community rather than organized in the best manner to accomplish the educational task of the schools. Financial support has taken back seat too often to considerations of taxation rather than to the requirements of education.

The concept of a comprehensive educational program implies the best possible education for every individual. But the *diversities in the participation of individuals in society* demand an unparalleled breadth and complexity in the program of education for the preparation, of individuals for effective contribution. This circumstance requires the organization of educational activity for large masses of individuals. I believe this is a basic fact which must be kept in mind regardless of

whether we live in the big city where the most pressing question of size seems to be how to cope with bigness, or whether we live in sparsely settled areas of dwindling population and face the problem of getting a school population large enough within a feasible organization that has a fair chance of accomplishing the desired purpose.

Organization must be viewed as a means of providing education of such *comprehensiveness that no individual gets lost*, that he is educated to the fullest possible measure. This cannot be done effectively for the total range of all types of individuals with a school population of less than 2,000 students in grades nine through twelve. Very few high schools have an enrollment of 2,000 students in these four grades. And many of those that do are in communities where the distribution of students in terms of interest and talent is so highly skewed that some instructional groups are too small from either an educational or economical point of view.

This does not mean that every high school should have a minimum of 2,000 students. It does mean that high school students should be in some operative administrative structure which serves a minimum of 2,000 pupils. There may be several schools or attendance centers, neither of which would be exactly like the other. Special programs such as instruction of the handicapped, vocational education, and even such work as advanced science could be consolidated in one attendance center so that all needs would be served in appropriate instructional arrangements at economical cost.

The school, regardless of grades included, is not the appropriate unit of organization in most communities to provide a comprehensive educational program. The range of interests and needs is too broad to provide large enough instructional groups in all areas of instruction. True, if given adequate resources the larger the school the more comprehensive can be the program. The little high school

of 100 to 200 pupils is hard pressed to offer a minimum program in the basic subjects of English, social studies, science, mathematics, and languages. If it attempts to offer anything in the specialized areas such as vocational education, music and art it encounters extreme difficulty.

SCHOOL SYSTEM IS KEY

The school system, rather than the school, is the key to the provision of a comprehensive secondary education. Few informed people question the advantages of having all grades from kindergarten through high school unified under one board of education, or of having a minimum of 10,000 pupils in twelve grades. This size of school population would have from 2,500 to 3,000 students in the high school grades, though not necessarily in one school.

In small communities, reorganization of old districts in most parts of the country has not gone far enough to establish districts with student population even remotely approaching these figures. Most high schools have fewer than 500 pupils, a figure which has been cited frequently in recent years as a minimum for a basic program. Precise statistics on size of secondary schools are not available to show the distribution of size by type of organization. Ford¹ reports the existence of 24,000 secondary schools in 1959 consisting of various patterns of grade organization. He estimates that about 16,800 of these schools have fewer than 500 pupils. From his data and other data on enrollments by school system, it appears that about one-fourth of the students in the upper four grades are in schools of fewer than 500 pupils.

Consolidation of small districts and small schools within districts is still a necessity in many communities as a first step toward creating an adequate organization for a comprehensive high school program. But this procedure will fall short

¹ Edmund A. Ford, "Organizational Pattern of the Nation's Public Secondary Schools," *School Life* (May, 1960).

of meeting minimum requirements of adequate organization in many instances. In every community where this occurs attention should be given to the possibility of forming regional units of organization for the consolidation of those programs and services which might be operated cooperatively for two or more local districts. In this manner students could attend their home high school for the basic or general subjects and the central center for specialized instruction for which otherwise they will either have an inadequate program or none at all.

The large school systems have unique advantages of flexibility. They can design curricula to meet the predominant needs of neighborhoods. Special needs can be accommodated by transferring students and teachers or by centralizing some instructional activity to serve students from more than one school.

I do not believe, therefore, that we will offer a program of secondary education as comprehensive as this nation needs until we give up some of our fixations about trying to provide such a program in small districts with small schools. We must invent an organizational structure to reach massive populations of no less than 2,000 high school students. To me, this structure is one of the fundamental requirements of an adequate organization.

INTERNAL STRUCTURE MUST UNDERGO CHANGE

The internal structure or arrangement of curriculum, staff and students is another aspect of organization which must undergo some change. One of the most imaginative propositions advanced for consideration is Trump's *Images of the Future*.² He suggests a new approach to the use of time of students and staff in the whole process of education.

Undoubtedly some changes will be needed. The whole pattern of instruction

will be modified. Scientific and technological developments will make available new teaching and learning devices. Methods of instruction will change. The over-all numerical relation of staff to students may change. For a quarter of a century the average ratio of high school students to professional staff in the nation has stabilized around 22 pupils (enrollees) per staff member for schools above 700 enrollment. In schools with fewer than approximately 700 pupils the ratio decreased in relation to school size to about ten students per staff member in schools with 150 pupils.

I observed recently in Illinois that the point of stabilization in this ratio moved up from 700 to 850 enrollment from 1948 to 1958. Furthermore, the average ratio dropped in the schools above 850 enrollment from 22 to 21 pupils (enrollees) per professional staff member. Whether or not this is a temporary change in this state, or symptomatic of a change which evidence from other states will support, remains to be seen. I observed no change in the average numerical staffing in smaller schools in relation to school size. This slight change in the larger schools may be indicative of an increase in the number of specialists such as counselors, psychologists and others. If the schools with enrollments between 850 and 2,000 students could round out their programs as members of a larger high school community, the average pupil-staff ratio would probably drop to 19 or 20 in terms of the present state of knowledge about organizing high school education.

The use of staff time will receive increasing attention. New patterns of practice which may be generalized from one situation to another undoubtedly will emerge. The adequacy of new arrangements will have to be judged in terms of the ultimate criterion of quality of education. Until new norms of practice are tested thoroughly in relation to this criterion, we can only speculate about the adequacy of particular organizational characteristics.

It may be that with new facilities and

² J. Lloyd Trump, *Images of the Future*. Urbana, Illinois, 200 Gregory Hall: Commission on the Experimental Study of the Utilization of the Staff in the Secondary School, 1959.

new methods of instruction, a better education can be provided with fewer than the present number of professional staff. We may discover that with adequate facilities only one master teacher per 100 students, assisted by an aid who keeps records and reads themes, can accomplish the purpose of education most effectively. In that case we shall have to invent a hierarchy of roles which does not exist at present in the organization.

For more than a quarter of a century leaders in education have held to the proposition that a massive staffing with master teachers is essential to the provision of an adequate quality of education. The chronic shortage of such teachers may be causing some leaders to abandon this principle for an expedient arrangement which would utilize the best teachers to maximum advantage to maintain, if not improve, the quality of education. Other leaders are interested in discovering what is needed in the way of staff characteristics, organization and facilities to accomplish the purposes of today and tomorrow.

Hence, adequate financial support depends upon organization with the capacity and the flexibility to operate programs with sufficient breadth and the necessary specialized services to meet the needs of all youth. Conceptions which most persons hold are based on such statistics as average cost per pupil and average cost per professional staff member (classroom unit). It is easy to see that such statistics mean very little unless they are properly weighed to eliminate the inflationary and deceptive influence of school size.

To set a standard of fiscal adequacy we must specify the organizational standards. We might start with a minimum high school population of 2,000 students and assume that schools with fewer than this number could somehow be related in new ways of organization so as to use staff resources most effectively not only for what is currently offered but for what may be needed. Such an arrangement would require an over-all average of about 19 students per professional staff member.

The best financed school systems have an average annual salary per professional staff member ranging from \$7,000 to \$8,000. (The average salary of teachers in the United States in 1959-60 was \$5,160.)³ Nobody knows what this figure should be to insure an adequate supply of all kinds of personnel needed. Certainly \$8,000, and more likely \$10,000, is the least average that local school systems should have in order to provide an adequate salary structure for professional personnel.

Since professional salaries constitute from 60 to 65 percent of the total operating expense in most states, the average operating expense per professional staff member should be from \$13,000 to \$15,000. Converted to amount per pupil enrolled in high school and averaged over a 2,000 student population, the figure would be somewhere between \$700 and \$800 per student.

Under the present organization the best that can be accomplished will leave much to be needed. But if we attempt it in single high schools with fewer than 2,000 students, we should increase the figure of \$750 by 3 percent for each 100 pupils that the enrollment fails to reach 2,000. For example, a reasonably comparable expenditure for 500 students would be \$1,087 per pupil. We should increase all of these figures about 20 percent to take care of buildings and facilities.

What's ahead in financing public education? All of the estimates that I have seen indicate a doubling of educational expenditures for the public elementary and secondary schools by 1970, from about 15 to 30 billions of dollars. These projections are based on enrollment trends, a continuation of inflation and living standards, and a national income increasing from about 425 billion dollars to about 700 billions.

I do not see room in these projections for sufficient improvement that will be needed in education. Granted there will be

³ National Education Association, *Research Report 1960 R8*. Washington, D. C.: Research Division, N.E.A., May, 1960, p. 45.

some, but this change will be largely an escalator effect resulting from inflation, increased enrollments and other factors. A doubling of public school expenditures by 1970 under the conditions which most prognosticators have assumed will leave the teachers in about the same relative economic position as they occupy today. This I am afraid will be inadequate. The

level of financial support in the next ten years should be accelerated as fast as possible to avoid the risk of national consequences inherent in the perpetuation of inadequate support.

• These approximations are on the order of requirements for adequate financial support and efficient organization for a comprehensive secondary education.

SUMMARY
OF
A PILOT CONFERENCE ON THE DISSEMINATION OF
PRINCIPLES AND PRACTICES IN THE USES
OF TELEVISION IN EDUCATION

Conducted by
The Subcommittee on Television
of the
Commission on Research and Service

THE NORTH CENTRAL ASSOCIATION OF
COLLEGES AND SECONDARY SCHOOLS

November 12-13-14, 1960
Columbus, Ohio
The Ohio State University



Pursuant to a Contract with
THE OFFICE OF EDUCATION,
U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

**SUBCOMMITTEE ON TELEVISION
NORTH CENTRAL ASSOCIATION OF COLLEGES
AND SECONDARY SCHOOLS**

MEMBERS

RICHARD B. HULL (*Chairman*)

Executive Director, Telecommunications Center
The Ohio State University, Columbus, Ohio

DONALD G. EMERY*

Superintendent, Shaker Heights Public Schools
Shaker Heights, Ohio

LESLIE E. BROWN

Dean of Administration, Cleveland College of
Western Reserve University, Cleveland, Ohio

ROBERT L. FLEMING,

Principal, South High School
Youngstown, Ohio

LAURENCE E. MCKUNE

Associate Professor, Continuing Education Television
Michigan State University, East Lansing, Michigan

WANDA B. MITCHELL

Director, Television Project
Evanston Township High School, Evanston, Illinois

EX OFFICIO MEMBERS

FRANK S. ENDICOTT

Chairman, NCA Committee on Current Educational Problems
Director of Placement, Northwestern University
Evanston, Illinois

J. FRED MURPHY

Vice President of the North Central Association
Principal, Broad Ripple High School
Indianapolis, Indiana

CLYDE VROMAN

Chairman, NCA Commission on Research and Service
Director of Admissions, University of Michigan
Ann Arbor, Michigan

* Chairman of NCA-TV Subcommittee from 1954 to 1960, representing the Municipal University of Omaha, Nebraska.

Television—A Tool of Education

Summary of NCA Pilot Conference

"ALTHOUGH STILL in its infancy, television has already had such an impact upon the collective mind of our society and shown such promise of value for the individual citizen that all educators must face the question, 'What can this medium mean for the extension and improvement of education?' The question must in 1960 be explored in the light of the evidence developed in the last decade. To put the question aside lightly is to be irresponsible at a time when educators face challenges calling for vision and leadership of the highest order; but to embrace the medium without thoughtfully weighing the problems inherent in its most effective use is as impractical as ignoring its existence and availability is irresponsible."¹

On November 12, 13, and 14, 1960, eighty people, representing each NCA member state, five other national accrediting agencies, various national educational organizations, and selected educational television authorities, were brought together at Ohio State University for a pilot conference on the dissemination of principles and practices in the uses of television in education.

This conference, sponsored by the NCA Subcommittee on Television with a grant by the United States Department of Health, Education, and Welfare, climaxed seven years of North Central activity in the area of educational television. As the voluntary accreditation association in 19 states, the North Central Association of Colleges and Secondary Schools is by tradition concerned with the development and maintenance of high standards of education.

Recognizing the importance of television as an educational tool, the NCA in

1953 appointed a Subcommittee on Television within its Commission on Research and Service. The function of the Subcommittee was to inquire into the status of uses of television in education and from time to time to disseminate to members of the Association and to other accrediting associations information in this regard. Since its inception the subcommittee has annually completed a survey of television practices in the nation.

The subcommittee has published two reports for members through the *North Central Association Quarterly* (July, 1954 and April, 1958) and arranged an educational television demonstration as part of the annual meeting program of the Association in April, 1958. In December, 1959, under an NDEA Title VII contract with the U. S. Office of Education, the NCA Subcommittee brought together eighteen nationally-recognized authorities in the field of educational television to conduct a four-day "Seminar on the Uses of Television in Education." The purpose of this seminar was to identify out of the 10-year record of research and experimentation in educational television a valid set of working principles and practices which could be recommended with assurance to the teacher and educational administrator. Further, the seminar was to suggest areas of needed research in this field.

PILOT CONFERENCE ARRANGED

Members of the 1959 Seminar and the NCA Commission on Research and Service strongly urged the Subcommittee to find ways and means of widely disseminating the conclusions and recommendations of the Seminar. Accordingly, in June, 1960 the Subcommittee, with the approval of the Commission's Steering Committee and the NCA Executive Committee, entered into a contract with the United States Office of Education for a "pilot conference on the dissemination of principles and practices in the uses of

¹ *The Uses of Television in Education*, 1960, prepared by the Subcommittee on Television of the NCA Commission on Research and Service under contract with the United States Office of Education. Copies are available from Secretary's Office, North Central Association, University of Chicago, 5835 Kimbark Avenue, Chicago 37, Illinois.

television in education." Financial support was provided under the authority of the National Defense Education Act, Title VII, Part B.

This pilot conference was designed to: 1) demonstrate uses of different kinds of equipment, processes and methods for using television in education; 2) relate uses of television in education to all tools used in education; 3) provide ways for recording the actions and findings of the Pilot Conference; 4) have a potential pattern developed for conducting additional dissemination conferences in the North Central area and beyond; and 5) bring the report of the December, 1959, seminar on the uses of television up to date.

To test the value of the pilot conference as a means for the dissemination of information in a variety of educational situations, participants invited included:

1. Delegates from the nineteen North Central states, representing secondary school and college and university officials.
2. Speakers and consultants experienced in the use of television in open broadcast; closed-circuit; and specialized research and training and in the administrative problems of scheduling, planning, and financing educational television.
3. Observers representing accrediting agencies, professional associations, and other educational organizations involved in television.
4. Members of the North Central TV Subcommittee and officials of the North Central Commission on Research and Service.

VARIED PROGRAM PRESENTED

Included in the conference schedule were tours of the facilities of WOSU-TV, the educational TV station of Ohio State University, and the closed-circuit TV installations of the University's School of Dentistry; and demonstrations of studio productions of televised instruction, classroom followup, and the Midwest Airborne Television Instruction Program.

Delegates heard papers and discussions on background and history of educational television; case studies of educational television at elementary, secondary, junior college, and university levels; and problems of the school administrator using educational television. Digests of some of these presentations are included in this summary of the conference.

SPECIAL EMPHASIS FOR FOUR STATES

Four North Central States were chosen for special emphasis—Ohio, West Virginia, Michigan, and Indiana—states representing four different stages of educational television development.² The ten delegates invited from each of these four states represented state groups with an interest in educational television: Personnel from educational television stations and production centers, television and classroom teachers, high school principals and superintendents, and leaders of higher education agencies, organizations, and institutions. Each state group of ten delegates constituted a planning group at the conference, and each planning group represented a test of the pilot conference pattern in a regional, multi-state dissemination conference.

FURTHER ACTIVITY RECOMMENDED

The pilot conference members made recommendations for further action by the NCA-TV Subcommittee and the State NCA Committees working through their state chairmen.

Delegates agreed that the NCA-TV Subcommittee should continue to act as a source of dissemination of information to interested groups, organizations, and agencies within and outside the NCA structure. They urged the NCA-TV Subcommittee to seek further funds to help make possible the holding of additional state and regional conferences for the dissemination of educational television principles and practices.

² Ohio had 4 ETV stations on the air, a state network in the planning stages; Indiana, with no educational stations on the air, one ETV production center, and one TV film audio-visual distribution center; West Virginia, no educational facilities, and minimal use of commercial stations for instruction.

ETV History and Status

Richard B. Hull, Chairman, NCA Subcommittee on Television

In 1952, the Federal Communications Commission established a new kind of broadcasting enterprise, the non-commercial educational television station, and ultimately reserved 259 television channels (87 VHF, 172 UHF) for the exclusive use of schools, educational corporations, colleges, and universities. While WOI-TV at Iowa State University in 1950 was the first educationally-owned television station to go on the air, it was licensed as a commercial station under the old FCC category. The first educational non-commercial station in the new FCC classification was KUHT at the University of Houston which began operation in 1953.

By February, 1961 the FCC recorded a total of 59 educationally-owned television stations with an estimated 12 to 14 more scheduled to begin operation during the year. Fifty-four of the stations fell into the non-commercial educational category while five were commercially licensed.¹

College and university.....	17
City and/or county public schools....	9
State board of education.....	3
State Commissions or authorities.....	6
Non-profit community corporations....	19

Each week these stations are providing more than 2,000 hours of program service which include systematic and supplementary instruction for credit in the schools and on the campus together with unique educational, cultural and informational materials for adults and out-of-school children. Potential audience within the coverage area of these stations totals 26,000,000.

Since 1952, thirty-two states have enacted legislation and appropriated funds designed to encourage or actually enable the use of television in education. Seven

states have passed legislation making it possible for schools to spend money for use of and participation in educational television. Four states (Alabama, Florida, North Carolina, and Oklahoma) are operating educational television networks. Six states (Georgia, Kansas, Ohio, Oregon, Maine, South Carolina) have planned or are in the process of developing statewide networks. Plans for a five-state network (Massachusetts, Maine, New Hampshire, New York, Pennsylvania), a six-state Mid-West network (Iowa, Minnesota, Nebraska, North Dakota, South Dakota, Wisconsin), and a thirteen-state network under the auspices of the Southern Regional Education Board have been drafted.

More than 400 educational closed circuit television installations are in regular instructional use by schools, colleges, universities, and the armed services. Some installations are multiple-channel operations covering an entire campus or county area. In 1960 at least 1000 school districts and more than 350 institutions of higher education used television in some form as an instrument of instruction.

Three national agencies have as a major or total concern, service to the developing educational television movement. The 35-year old National Association of Educational Broadcasters (Washington, D.C.), representing 800 institutional and individual members, including most of the educational television stations, was the progenitor of the other two agencies. The Joint Council on Educational Broadcasting (Washington, D. C.) in 1951, secured the educational channel reservations and the National Educational Television and Radio Center (New York in 1952) is the national program network service for the stations with a comprehensive program distribution from its video tape and film center at Ann Arbor, Michigan. Programs are primarily directed at out-of-school children and adults. No national educa-

¹ The five educationally-owned but commercially operated stations were owned by Iowa State University, Loyola (New Orleans) University, University of Missouri, Notre Dame University, and St. Norbert's College.

tional distribution service for in-school or on campus credit courses has been developed.

Latest development on the educational television scene is the Midwest Project for Airborne Television Instruction with headquarters at Purdue University. An experimental venture, jointly sponsored by industry and foundation funds (including the Ford Foundation, Westinghouse Corporation, CBS Laboratories), MPATI in 1961 will begin transmission from a DC-6 airplane, circling over Montpelier, Indiana. Two airborne UHF channels will transmit course materials for all grade levels to portions of a six-state area, embracing Indiana, Illinois, Kentucky, Michigan, Ohio, and Wisconsin.

In 1951 when the Joint Council on Educational Broadcasting (JCET) sought reservation of television channels for education, the "educational television movement" was thought of primarily as a program service for adults and out-of-school children which incidentally might provide enrichment materials for school, college, and university classrooms. This concept reflected the thinking, not only of the more than 100 educational radio stations then in existence, but of the Fund for Adult Education, an independent organization established by the Ford Foundation, whose early and continuing financial assistance made the development of educational television in the U. S. possible. In 1955 partly as a result of successful experimentation in direct and total instruction by television over community station WQED in Pittsburgh, financed by another Ford Foundation entity, the Fund for Advancement of Education, great sums of money were spent by this agency in the *formal instructional* as opposed to the *general educational* and cultural uses of television. For a time there seemed to be *two* "educational television movements" which sometimes opposed one another. There is now general consensus that they are differing but equally important and complementary aspects of a new development on the American scene

which Dr. George Stoddard, executive vice-president of New York University describes, "Not as a supplement (alone) to existing institutions, but a new social institution in itself."

Educational television's development began just as American education began to face the "educational crisis," the new complex of problems and challenges brought about by the population explosion, a predictable continuing shortage of able teachers, and new quality needs in education, dramatized by "Sputnik." Television has been described as the most important new educational tool devised since the invention of moveable type. Like any device—textbook, blackboard, film projector—television can be used wisely and imaginatively or poorly in the purposes of education. With its unique ability to multiply educational resources, an increasing number of educators believe television can play a major role in the quality-quantity problems which American education faces.

During its 10-year history the fact has been well established that educational television can instruct, inform and inspire. An enormous amount of research consistently demonstrates students can learn as well (and sometimes better) than they can in conventional teaching situations. Because of television's ability to project and multiply experiences the great potential this suggests for upgrading education on all levels (elementary, secondary, college, university, and continuing adult education) is now being explored on an increasing scale not only throughout the United States but in Japan, the United Kingdom and many other areas of the world. One example of that continuing and growing search and study is this conference on disseminating information on the educational uses of television for which the North Central Association of Colleges and Secondary Schools, together with its Commission on Research and Service and the Subcommittee on Television, has brought us all here together on the Ohio State University campus.

The Population Explosion—Its Effects on Education

Ronald B. Thompson, Executive Dean, Office of Special Services, O.S.U.

THE PROBLEM

Approximately one-fourth of the entire population of the United States is now in school. More than 48 million students crowd our elementary schools, secondary schools, and our colleges and universities. The number of births per year has approximately doubled in the last twenty years.

Increasing proportions of our high school graduates continue to enter our colleges and universities. As a continuing larger percentage of our population is represented in the group twenty years old and under, even a greater proportion of our entire growing population will be in school. In a few years, the number of persons attending school in the United States will approach fifty million.

It has not yet been determined whose responsibility it is to provide educational opportunities for these unprecedented millions who are coming to our colleges and universities. Only a relatively few communities have established a college or university. Most colleges and universities are now operating at or near what they consider their maximum capacity. Practically every dormitory room in the United States is now filled. Most of our better colleges are turning away more and more students each year. Tuition fees are being raised almost uniformly throughout the nation. What is the answer to these problems which face us in such magnitude that we have no precedent from which to find a solution?

CURRENT TRENDS

There may be no one answer to the problem. However, month after month and year after year as individual decisions are being made to construct a classroom building here, raise standards for admission there, increase tuition fees elsewhere, establish branches of colleges or universities, establish a new college, seek support

from corporations, or try one or more of the many other avenues of approach, patterns are being established for the solution of this problem. What are the educational alternatives which are available?

EDUCATIONAL ALTERNATIVES

1. *Expand Present Campuses.* One obvious solution to the problem cited above is the expansion of present campuses. If we rely upon this as the sole solution to the problem, it will be necessary to build within the next eighteen years more classrooms, laboratories, offices, and other physical facilities than now exist on all the college and university campuses in the entire United States.

2. *Make Better Use of Present Facilities.* In our effort to plan for the education of this tremendous number of students, every consideration should be given to the utilization of facilities immediately at hand.

Colleges soon may be forced to utilize facilities better and increase significantly the student-professor ratio. Parenthetically, if it can be shown that this is one method of increasing salaries, there may be less reluctance in making these modifications.

3. *Extend Present Secondary Schools to Thirteenth and Fourteenth Years.* As the numbers of students beyond the secondary school continue to increase, another immediate solution presents itself in the extension of the secondary schools into the thirteenth and fourteenth years. Perhaps the greatest danger to such a plan is the difficulty in making this program really of college caliber. The temptation will, of course, be to make the work simply two more years of secondary education. Careful supervision and administration will be essential if this plan is to result in high-quality instruction.

4. *Build Branches to Existing Universities.* In order to assure the establishment of high-quality instruction, it has been suggested that these new schools be organized as branches of existing colleges and universities. This plan would encourage the natural close relationship and the supervision of the parent institution. Comparable facilities, libraries, laboratories, and other instructional facilities could be furnished at the new school and the quality of instruction could be checked quickly with the supervising university.

5. *Establish New Community Colleges.* Many people feel that each community should assume the obligation of providing for the education of its own youth at least through the first two years of college, just as these communities have assumed the responsibility for elementary and secondary education for many generations.

6. *Establish New State-Supported Colleges and Universities.* Because of wide discrepancy in the capacities of varying communities to support higher education it has been proposed that the base be broadened for the support of higher education and that each state as a unit assume the obligation for the education of youth beyond the high school.

7. *Utilize Full Calendar Year.* The utilization of the full calendar year by our colleges and universities could result in a real saving in the total cost of higher education. While there are admitted problems related to this alternative, colleges and universities on the semester plan may find it more feasible to add a semester to the present two semesters rather than increase the physical plant by 50 percent in order to accommodate an increasing student body while leaving the physical plant idle during the summer months.

8. *Establish Technical Institutes.* In the growing complexity of our American society we are finding that all postsecondary students do not fit into the conventional academic pattern. Many students who should not attend a traditional college of liberal arts could and should profit by postsecondary education.

9. *Utilize New Teaching Aids.* Professional educators whose business it is to train our youth and prepare our teachers of youth should be the first to develop new and improved methods of teaching to the end that the educational process can be achieved most effectively and economically. Many new teaching aids, such as radio and television, have been developed recently and tried more or less experimentally. Closed circuit television, with kinescoped presentations, has been used as a supplement to good teaching and, at times, as a substitute for formal lectures. While no one of these devices nor a combination of all of them will replace the good college professor, they can, when used intelligently, enable the professor to do more effective work as a teacher.

10. *Increase Student Faculty Ratio.* This is obviously not a popular alternative particularly among the teaching faculties in our colleges and universities. Administrators may find, however, that this may be one way they can live within their resources and at the same time raise faculty salaries while they are providing adequate instruction for an ever-increasing student body.

11. *Raise Tuition Fees.* There are many who advocate that the local community, state, or nation has an obligation for only the elementary and secondary education of our youth and that education beyond the high school should be for only the most gifted and that this education should be practically self-supporting. Somehow we must find that balance which will enable the college and university to maintain a high level of academic excellence and at the same time permit those students who are willing and able to pursue a college education to be given the opportunity. Higher education must not price itself out of business.

12. *Seek Additional Sources of Revenue.* Unprecedented expenditures of funds will be required if we are to offer opportunities in higher education to the additional millions of youth who will seek admission to our colleges and universities in the years immediately ahead.

One controversial source of financial support for higher education is the Federal Government. There is always the fear that federal support will inevitably bring federal control. A look at the history of federal aid fails to substantiate this concern.

It may be that the time has come when we should forget our local pride, even our wider provincialism, and approach at the national level the problem of providing equal opportunities in higher education for all our youth.

13. *Limit Enrollment.* There are many educators who, when they contemplate the enrollment of two or three times our present number of students, advocate stringent limitations of enrollment. Surely, following this fine American tradition of providing every possible opportunity for youth, this will be our last resort.

What, then, is to be our choice of the available educational alternatives? Shall

we expand our present campuses, shall we make better use of our present facilities, extend present secondary schools into thirteenth and fourteenth years, build branches to existing universities, establish new community colleges, establish new state-supported colleges and universities, obtain additional sources of revenue, utilize our full calendar year, establish technical institutes, increase student-faculty ratio, utilize new teaching aids, raise tuition fees, or limit enrollment? Our choice will portray the depth of our concern, the extent of our vision, and determine the destiny of generations too young to choose for themselves. More important, however, it will decide the fate of our nation, for the hope of the nation rests in the enlightenment of its people. Let us choose wisely then that those who follow us may have at least the same high-quality educational opportunities it was our own good fortune to enjoy.

New Patterns and New Media for Education

Thomas Clark Pollock, Dean, College of Arts and Science, New York University

It requires a wide angle of vision to put television in its place as one of the newer media of communication now available for education. Television and the other media which were not available at the turn of the century and are available now, make possible new patterns of education.

Until a comparatively few years ago in human history, the only two means of communication which could be used for education were face-to-face oral communication and the written word. From our earliest youth, we have been accustomed to thinking in terms of the classroom as the center of education. We have been educated this way ourselves from elementary school into high school, into college, and into the graduate school.

The typical system is to work out a course of study and to assume this must be taught by a teacher in a classroom. Year after year as I have tried to think about the new media, I find I keep making

assumptions that the classroom is the necessary center of education. This is hard to break. I suggest that you watch how often in your writing and speaking, or in the writing and speaking that you see and hear, "classroom" is equated with education, and that the idea of teachers for classrooms is equated symbolically with the very idea of education.

I believe that really good thinking about education from now on must begin with the recognition that oral transmission in a classroom is not necessarily the only setting for education. There seems to be an assumption that in using television, we will televise regular classes, with the classroom inevitably the center.

I suggest that what we should be doing from now on is to try to think about the goals of education we wish to achieve in terms of the media for educational communication. It seems to me a serious mistake to assume there is just television

or that television must be primary. Sometimes as we think about television for education we assume that it can do everything.

I am thinking about the newer media as plural. I have no idea that any one of them is the central one. The first we have is the quick and cheap duplication of the written word. The most obvious example is the paperback book. There are many other quick duplicators of the written word. They are extremely important, and I don't think we have really caught on to using them in educational practices.

Until a few decades ago, it was assumed, and still is, that the written word was a rare, valuable item. It was. Dartmouth, through the end of the eighteenth century opened its library just one hour every two weeks. Dartmouth did not permit more than six people in the library at one time. Freshmen could take out only one book at a time, and that only if they got to the library that one hour in the fortnight when it happened to be open. There were many reasons for this, but the main one was the rarity of books.

My father's family comes from western Pennsylvania. We have a deed for some land bought around 1820. It is a valuable deed in many ways. It is written on a small bit of paper and it is very closely written on, because paper was extremely valuable in western Pennsylvania 130 years ago.

We are still in a stage where we do not use the written word as often or as widely as I think we can. I try to point this out in talking with college teachers. I feel they do not do as good a job as I think they should in giving their students at the beginning of the term, clearly stated in writing, what they really want the students to learn. They assume that if students come to class day after day, and teachers, whenever they think about it, pass this out in oral fashion to a captive audience, this will do it.

Secondly, I stress the large group of items, including television, which I will call "audio-visual extension and preservation." The normal class cannot extend

itself. You can use a larger classroom but you cannot extend it as radio or television can. In preservation, we are well advanced technologically in preserving the spoken word now through various devices for recording. Fairly soon we hope to have reasonably inexpensive preservation via television tape. RCA engineers are hopeful of having within the next few years a television tape recorder within the \$15,000 range. They are conscious of the need for a breakthrough here.

Thirdly, we are beginning to get involved in the area of teaching or learning machines. Some are already being marketed. As I see it the significantly new thing about what I am calling a teaching machine—we have an example of it in some of the uses of language tapes—is the breaking down into extremely small steps, the necessary sequence of learning in a specific subject. A new English book has been published which has the first carefully planned and programmed workbook which could be put into a teaching machine. The teaching machine gives the material to the student just one step at a time; the student is asked a question; if he doesn't give the correct answer, he cannot go ahead in the book.

There is still a psychological argument here as to how much external aids can help to reinforce learning. To exaggerate a bit, when the student gives the correct answer, something is there to give him an immediate pleasurable experience, to make him feel good that he got it right. Whether or not that is psychologically good or necessary can be argued, but the teaching machine does present the possibility of a student being taught and checked immediately on his learning. I think there is going to be a very valuable usage here—one student at a time using it without involving the rest of a class.

It seems to me that in using these new media we have a real challenge to rethink the methods and patterns of education. We should start with a very clear definition of the specific goals of education. We have not entirely shaken off the age-old belief that education is a mystery.

If we go back into the history of mathematics to the time when the priest and the mathematician lived together, mathematics was something that was hidden, that one didn't try to explain. There was something wrong about analyzing it too carefully.

In the field of history, I know three historians who felt for years that it was somehow wrong to define the specific goals they were trying to attain in teaching a specific course in history which was already defined by title. If you analyze the thinking of some of your colleagues you'll find that this is still often true.

I am not trying to deny the importance of interpersonal communications. I believe with Martin Huber that what is essentially human comes from one human being looking into the eyes of another human being. This is not what I'm talking about at all. I'm talking about the way we tend to refuse to clarify the specific goals we want to reach.

As far as we can we should make clear to the student from the beginning where we think he should go. Immediately we come up against the educational assumption that the student should not define his own goals. I would say this is true to a degree, but the formal education system

does this: if a high school student is asked to take a course in first year French, we assume we are trying to get him to develop in first year French something rather than what he decides is the goal. The student should be helped to understand this. We should go farther.

We should think more about scope and sequence in relation to each thing we are trying to teach. In the teaching of literature, for example, we haven't even begun to think of facing up to scope, and very rarely, to sequence. I feel I could prove it in this field because in this, I am a specialist. I might not be able to prove it in the subject matter field in which you are a specialist; but as far as I am able to see, we haven't done the job.

I think we are challenged to do the best creative thinking we can, not merely in using television as a tool in the next three or five years; we are challenged to try to imagine how television and the other media of education that we now have can be used to work out the best patterns of education. This does not necessarily mean using classrooms at all. It means using classrooms where they happen to be the best medium of communication for the students in the last decades of this century and in the future.

Ten Years of Research in Instructional Television

Egon Guba, Coordinator of Research, College of Education, Ohio State University

The title of this address is "Ten Years of Research in Instructional Television." I should like to make four statements about this title which will help clarify just what I mean to cover:

1. I have chosen the period of ten years arbitrarily on the assumption that most of the significant research dealing with instructional television has been done in the last decade.

2. I define the term "research" to include not only those relatively few studies

which would meet rigorous methodological criteria for good research but also those reports which can most charitably be described as *inquiries* into instructional television.

3. I want to draw a clear distinction between instructional television and educational television. The latter term may be used to designate any attempt to educate or teach via television, however informal the approach may be. So for example "Omnibus" is a form of educa-

tional television. The former term, instructional television, designates formal, structured, and systematic approaches to the achievement of well-defined instructional objectives; it usually implies a school-type operation.

4. I should like to point out a crucial difference between *instructional television* and *televised instruction*. In the case of *televised instruction*, we simply interpose an additional means of communication between the learner and the teacher or the teaching situation. We imply by the term that we will teach in the old conventional way but transmit this teaching by electronic means. But the term *instructional television* implies that television can *add* something to the usual or normal instructional situation that would not otherwise be there; it implies that the television medium *qualitatively modulates* the teaching. Now, almost all of the research to date has been concerned with televised instruction, and very little indeed with instructional television.

I have limited discussion today to inquiries into televised instruction carried out during the past decade. I propose to arrange my discussion into six areas which may be posed in questions.

- I. Who does the research?
- II. How dependable is the research?
- III. What kinds of questions have been asked by the researchers?
- IV. What data have the researchers isolated in response to these questions?
- V. What questions have *not* been asked by the researchers?
- VI. What are some desirable next steps?

I. WHO DOES THE RESEARCH?

From data, it is apparent that the very large majority of studies are carried on in one of three settings: universities, public schools, or the military. University studies, if we lump dissertations in with them, account for 48 per cent of the total.

Who pays for these studies? Insofar as research is financed by outside grants, however, we may point to three major

sources of funds: (1) The military, (2) The Ford Foundation and the Fund for the Advancement of Education, (3) Title VII of the National Defense Education Act of 1958.

II. HOW DEPENDABLE IS THE RESEARCH?

Only a very few of the extant studies can meet what might be termed the rigorous, scientific criteria for research. Broadly speaking such criteria are two sorts: "Criteria of Internal Validity" and "Criteria of External Validity." In the former case we are concerned with the internal arrangements of the study, e.g. are there adequate provisions for controls, is the instrumentation reliable, are the data collected in ways that satisfy the assumptions of whatever statistical techniques are to be applied to them, and the like. In the case of external validity we are concerned with the generalizability of the experimental findings: "To whom do the data apply?"

In most cases of research in instructional television, these requirements of rigorous research have not been adequately met. Experiments are done with convenient subjects, under poorly controlled conditions, with available rather than specially developed instruments. It is clear that from the point of view of external validity, the findings of such studies have little generality, and from the point of view of internal validity many of them may be misleading.

I want to be very careful, however, not to imply that such studies are worthless. I simply mean to indicate that one must keep his wits about him in interpreting such research.

III. WHAT KINDS OF QUESTIONS HAVE BEEN ASKED BY RESEARCHERS?

The first question that occurred to everyone is, "Can teaching take place on television?" It is curious, I think, that anyone should have taken this question very seriously. There was, after all, no reason to suppose that one could not communicate facts or concepts as well by this medium as through books, films,

radio, or any of the other more common media.

This initial question was soon rephrased to become, "Can television teach as well as 'conventional' methods?" This is an interesting question because it assumes that there is a method or methods which can be labeled "conventional." As any experienced researcher in this field can attest defining the "conventional" method and getting teachers of controlled groups to stick to it is even more difficult than to make operational the new television approach.

But there is a second, more subtle, problem lurking in this apparently straightforward question—the question assumes that "television teaching" is different from conventional teaching, when in fact, as I have already tried to make clear by distinguishing televised instruction from instructional television, the so-called television teaching is usually simply the same old conventional teaching with an additional medium of communication interposed between learner and teacher. Thus, from a logical point of view, the question, "Can television teach as well as 'conventional' methods?" makes no sense if by the term "television" you imply televised instruction. Unfortunately this nice distinction has been overlooked with great regularity.

These first two questions, i.e., "Can television teach?" and "Can television teach as well as 'conventional' methods?" may be summarized by labeling them "Questions about Learning"; and incidentally, it is crucial to know that what is usually meant by learning in this context is the amassing of factual information, evidenced by the ability to recall or recognize the learned facts in an objective examination, usually of the multiple choice variety. There have been other classes of questions, which have not, however, been as thoroughly researched as the learning questions. These include:

1. What are student reactions to and attitudes toward television as a teaching device?

2. What are the best viewing conditions for learning?
3. What kind of television installation is appropriate to the school situation?
4. What costs are involved in television instruction?

IV. WHAT DATA HAVE RESEARCHERS ISOLATED IN RESPONSE TO THESE QUESTIONS?

1. Learning. There seems to be no possible doubt from the evidence that learning can be produced via television and that television is as effective a medium as any "conventional" method. The situation is nicely summarized by the *Encyclopedia of Educational Research*:

Teaching by television is effective at all levels of instruction, from elementary school to military training. In very few cases has TV instruction been found to be inferior to conventional instruction, and in many cases TV was significantly more effective.

Samuel Becker of the State University of Iowa, in summarizing TV research before the convention of the American Association of School Administrators in Atlantic City in February of this year, concluded that:

The bulk of the evidence from instructional research has to do with . . . retention of information. It seems to me that the evidence here is quite clear. Study after study can be cited to show that students can retain information as well from many types of television presentations as they can from most other types of presentations, including face-to-face lecture or discussions. The instances in which a contrary finding occurred can easily be accounted for in terms of sampling error and differences between experimental groups other than simply the presence or absence of television.

Wanda B. Mitchell, Director of the Television Project of the Evanston, Illinois, High School, points out in the 1958 report prepared by the Subcommittee on Television of the Commission on Re-

search and Service of the North Central Association that:

Considerable research on how well students learn on television as compared to regular classrooms indicates that students can, and do, learn well when instructed by television. Of the 50-odd studies reported on this question, there has been only one case in which a definite superiority was found for face-to-face instruction.

It would be burdensome, I think, to document these assertions here in detail. I would, however, like to present summary evidence from two sources in their behalf. First I should like to make reference to the Ford report on the first year of operation of the National Program in the Use of Television in the Public Schools.

A total of 26,992 students participated, 14,326 TV, 12,666 control. 110 total comparisons were made, of which 68 were in favor of televised classes and 42 in favor of control classes. Of these 110 comparisons only 38 were significant however, 29 in favor of televised classes and 9 in favor of control classes. The relatively small proportion of significant to total studies is about what is normally found, a fact which has led TV researchers to band themselves together into what we call "The Cult of the No Significant Difference."

While the results are impressive, they are also for many persons suspect in view of the supporting agency. Let me therefore cite from a second summary prepared by William H. Allen for the California State Department of Education.

Of 45 studies reviewed by Allen at the elementary school level, 31 showed no significant difference, 11 showed TV superior, and 3 showed conventional instruction superior.

Of 24 junior high school level studies, 19 showed no significant difference, 3 were in favor of TV, and 2 in favor of conventional instruction. Of 67 senior high school level studies, 48 showed no significant difference, 14 showed TV superior, and 5 showed conventional instruction

superior. Finally, of 23 studies at the junior college level, 20 showed no significant difference, one was in favor of TV, and two were in favor of conventional instruction.

Allen also points out that when these same studies are viewed from the point of view of subject matter rather than grade level, the same general picture—no significant differences—emerges.

2. Student attitudes and reactions. As compared to the number of studies on learning, the number concerned with student attitudes toward instructional television is small. The findings are, moreover, equivocal. Several studies in military settings showed students generally favorable toward television instruction even though the achievement of the television classes was equal to that of control classes. At the Pennsylvania State University a free-choice method was utilized, under the terms of which 312 chemistry students, after five weeks' experience hearing lectures in a large auditorium and an additional five weeks of experience in small television classes were given the choice of which kind of class they would attend for the remainder of the term. Only one-third chose the television classes; however, this third included 50 percent of those who had had seats in the back half of the auditorium and 20 percent of those who had had seats in the front half. Upon later questioning those who had chosen TV instruction were more certain that they had made the right choice than did the regular group. At Miami (Ohio) University students showed an initial good reaction to TV but later became less enamored of it, a phenomenon which the researchers there have come to refer to as "progressive disenchantment." From these studies it is clear that more definitive research is needed in this area of student reaction; no firm conclusions can now be drawn.

3. What are the best viewing conditions for learning?

4. What kind of television installation is appropriate to the school situation?

Studies have been done which investi-

gated such things as optimal size of screen, lighting, viewing angle, seating arrangement, audience size, and the like; and have determined the feasibility of various kinds of open and closed circuit installations for various purposes. Possibly the best source for this information from the school man's point of view is the brochure, *Design for ETV, Planning for Schools with Television*, prepared by David Chapman, Incorporated, and available free from the Educational Facilities Laboratory in New York.

5. What costs are involved in television instruction?

It is clear that cost factors are among the more important considerations in comparing televised instruction to other forms. It is difficult to obtain meaningful figures from experimental programs since such programs obviously cannot be as economical as well-developed, standardized instructional programs. The number of personnel and the quantity of hardware necessary to put even a fifteen-minute lecture involving a single teacher on the air are appallingly large and can be justified only when the audience is sufficiently large.

Some available data are illuminating however. The Dade County (Florida) study involving three elementary, three junior high, and three senior high schools resulted in a saving of 27 teaching positions and 29 classrooms, which more than made up for the \$120,000 operating expense for the telecast. At both Pennsylvania and Miami Universities, cost analyses have shown that whenever course enrollment exceeds 200 to 220 students, televised instruction becomes cheaper than regular classroom instruction. Obviously televised instruction costs money but under certain circumstances can more than pay for itself.

V. WHAT QUESTIONS HAVE NOT BEEN ASKED BY RESEARCHERS?

Obviously there are more unanswered than answered questions. I believe that we have neglected a number of vital

questions, and it is my hope that we can soon turn our serious attention to them. These questions include:

1. What utility does television have for learning of other than a factual nature? It seems to me that learning can be characterized as existing at three levels: (a) the *action* level, in which the student on his own initiative teaches himself through suitable material, (b) the *reaction* level, in which the student learns by reacting to the instruction of a teacher, and (c) the *interaction* level, in which the student learns by interaction with the teacher and other students. So far TV research has tapped only the reaction level, and then only with respect to facts. We must ask questions about the other levels, and with respect to such other objects as problem solving, evaluation, social, and cultural skills.

2. What utility does television have in the area of concomitant learnings, e.g., for teaching attitudes and values, for developing a sense of openness in students, for improving their sense of security and belongingness, and the like?

3. How can TV best be utilized in situations where it is to be (a) a total teaching device, (b) an enrichment device, and (c) a supplementary teaching device?

4. What are the desirable and undesirable aspects of the uniform curriculum which mass television teaching is likely to produce?

5. What is the teacher's role in television education? How can the television teacher and the studio teacher best plan together? What does the studio teacher contribute to the partnership? Can he do things which the classroom teacher could not himself do? What is the classroom teacher's role? Can televised instruction release him from some of his present duties; if so, from what and for what? How can teachers best be trained for these new roles? How can the partnership of studio and classroom teacher be formed without lowering the latter's self-esteem and making of him a second class citizen?

6. What is the role of the school as an institution in an age of televised instruc-

tion? Does the local school become simply a "viditorium" in which centrally developed programs and courses are developed and received?

7. What is the role of the student? From an academic point of view, what looking and listening skills ought he to develop to become an effective television learner? Will he be enabled to take more direct charge of his own education? What perceptual processes are best adapted to the task of television learning? From the psychological point of view, how does the student identify with the school and with the teacher? Which teacher? Is his graduation cheer to give a "Yea, Yea, Yea, for RCA?"

8. What is the role of the school administrator? What becomes of his function as supervisor of instruction? Does he devolve into a simple record keeper and discipline maintaining functionary?

9. What is the role of the television specialist? How do the details of his handling of programs influence learning? To what extent will he make curricular decisions? How can such specialists be trained to stand in relation to learning by television in the same sense as the read-

ing specialist stands in relation to learning by reading?

VI. NEXT STEPS

Where then do we go from here? Thus far the research has been done by a surprisingly small number of agencies, and has been supported by an even smaller number of patrons, some of whom have, at least by reputation, an ax to grind. All too frequently relatively unimportant questions have been studied by methodologically inept investigators. The results are ambiguous, to say the least.

Yet we have made strides. Our crawl, I am confident, will soon become a vigorous walk. Our questions will expand from the relatively obvious consideration of mundane issues to more pervasive psychological, sociological, and developmental questions. Our experience to date calls not for less but for more research. Television is undoubtedly here to stay as an instructional tool. Applications will be made. Our task will be to see to it that the applications are not made willy-nilly, but in light of sound theoretical formulations well substantiated by reliable research data.

Case Study—ETV in the Elementary and Secondary Schools

*Charles Hettinger, Supervisor of Television and Radio Education,
Pittsburgh Public Schools*

"What can television do for my school?" This question is frequently asked of me in a manner tinged with skepticism and edged with antagonism. I answer, "What do your schools need?" I respond to a question with a question with no attempt at sophistry or flippancy. What your schools need may find its solution through television.

For example, last year the Pennsylvania State Department of Education made mandatory for the first time developmental reading courses in the seventh and eighth grades. Most of the Penn-

sylvania school districts didn't teach developmental reading in the seventh and eighth grades. Hundreds, even thousands of English teachers were suddenly faced with teaching a course that they didn't know how to teach.

And not only English teachers: those of you acquainted with scheduling problems in certain high schools know that also affected were some gym teachers, some music teachers, social studies teachers, and some shop teachers. They were all going to teach developmental reading. We saw a way TV could help the schools.

We put on two classes a week of seventh grade developmental reading and two in eighth grade developmental reading in the Pittsburgh area. This served a double purpose: to teach the youngsters developmental reading and to teach the teachers how to go about teaching developmental reading. This year we are repeating this course and it is very successful.

Philadelphia also saw a challenge in developmental reading, but they handled it differently. They didn't produce courses for use by teachers and children during the school day. They presented an in-service training program after school that gave in-service training credit that would help the teachers meet requirements.

After Sputnik, there was the thought that what is called "Ninth Grade Science" should be moved down to the eighth or seventh grade, leaving the ninth grade free for biology, the tenth grade, for chemistry, and the eleventh grade for physics and more specialized, advanced courses. Through TV we started "moving down" what is ordinarily ninth grade science. One seventh grade course—we call it "Junior High School Science"—covers the biological sciences. Another course, "Eighth Grade Science," emphasizes physical science. We don't give grade levels to these programs because schools use them in the seventh, eighth, or ninth grades.

Here's another example of how television has helped us in Pittsburgh: with the help of some Ford Foundation money, we started an experiment this year of schools in depressed or culturally deprived areas. From our experience and our test programs we knew that these areas—with almost 100% Negro population—don't have the same cultural opportunities for the children as other areas. The youngsters there have the same educational opportunities as other children, but not having the same background to work with, they can't grasp these opportunities.

We decided television could help here because there are things we can do over TV that we couldn't do in each of these schools in culturally depressed areas. For

example, a teacher of current events for fourth, fifth or sixth grades, presenting a class on TV could get guests, visuals, etc. which would be impossible to do in each classroom. Another example: a course for second and third grade we call "Social Living." This encompasses safety, health, good eating, science, social studies, etc.—a little bit of everything. Doing this on television has helped answer some of our problems in Pittsburgh.

Farther afield, in Dade County, Florida, the population was growing so quickly they couldn't provide enough schools or classrooms. From the speeches and articles by people in the Dade County administration, I understand that the only way they have been able to keep their school systems functioning normally on a full day's schedule is by using television and large classes.

There are areas in the United States with many small school districts, with school buildings with less than 100 students. It has been impossible for those high schools to offer courses which the youngsters should be getting. Television has helped those school districts offer courses which would otherwise be unavailable.

In Pittsburgh we say that if every one of our classrooms had in it a superior teacher with a reasonable number of youngsters, and was well-equipped, we might not need television. I don't know about your district, but we don't have many classrooms like that. I don't know what "a reasonable number of youngsters" means, but when I taught high school composition, my smallest class was forty, and I know that forty is not "a reasonable number."

Well-equipped classrooms? I've gone into many elementary school classrooms where equipment consisted of two drooping flowers and one medicine dropper. Even if we had a superior teacher with a reasonable number of students in a well-equipped classroom, I think we could still do some good with television. Even in that perfect classroom, textbooks serve a fine purpose. A superior teacher could

teach without textbooks. Youngsters could learn without them. They have done it for thousands of years. But they learn better with textbooks. They learn better with proper use of film and maps and globes and chalk, and television.

In television there is no face-to-face contact with the television teacher. I would be the last to deny that face-to-face contact with a fine teacher is one of the greatest things that can happen to a student. Nowhere in this country has television taken over. In most places the youngsters have only a class a day via TV, and on this TV lesson they usually have "a superior teacher." Might it not be worthwhile for them to meet another fine teacher by television they might not otherwise have met?

Television is a mass media and some people worry that it "doesn't take care of individual differences." I submit that on the secondary level in this country today we merely pay lip service to individual differences. In a few places teachers do something about it, but they are in the minority. I don't think this is true in the elementary schools. I think they do a tremendous amount of work on individual differences. But how much individual attention do your youngsters get in the secondary schools in your district?

I suspect many teachers do what I did one time. I had four classes in American Literature. All four classes got the same lecture, the same discussion, because I didn't want them to get too far separated. I would have an extra lesson to plan and work out if they did. What I could do was limited. We do very little about individual differences on the secondary level. Using television properly we can do more than we can under other circumstances.

Television also releases the classroom teacher to observe her class. A teacher cannot be a performer and observer at the same time. Teachers who take the opportunity of the television lesson to find out what problems face their youngsters work along with the TV teacher and are better equipped to do the "followup" to

the TV lesson. The classroom teacher in the followup is doing something every bit as important as that of the TV lecturer. There are two steps to the teaching process: presentation of the material, the information, the facts, and secondly, making the facts part of the student's experience. The TV teacher does the presentation of facts. The classroom teacher helps direct the facts into wisdom and true knowledge.

These are the eight things we think television can do for the schools in our area:

1. *TV can fill special needs* such as the developmental reading courses of moving ninth grade science down into the lower grades.
2. TV can offer schools courses not available any other way.
3. TV can enrich school courses by showing real, live and concrete things which were merely in book before.
4. A first-rate teacher can reach 40,000 students instead of just 40.
5. Television can serve as "in-training service" for teachers.
6. It can stimulate greater activity in each classroom.
7. It's an effective means of public relations, bringing the school into the home.
8. It can extend the school day.

Less than six years ago, Pittsburgh was the first place in the world to attempt basic teaching by television. We only used twenty classes. We were afraid if it didn't work that we would ruin the lives of the youngsters in those classes. Now we number our television classes by the thousands. More than 600 different U. S. school districts are doing the same thing. The Midwest Program for Airborne Television has a potential classroom of five million students. Half a million youngsters in the New York area received part of their education last year by television. Two states already have educational TV networks. Several others are in the process of getting them. Scores of colleges are us-

ing television. This is the growth in six years. Something that has grown so strongly in such a limited time must have in its future only growth. Television has

nearly come of age. It will come of age to the extent that those of us who work in it bring to it the inspiration and perspiration to endow it with life and vitality.

Case Study—ETV in the College and Junior College

Glenn Starlin, Director, Inter-Institutional TV Teaching, University of Oregon

Discoveries in electronics have revolutionized communications, computation, and other factors related more to man's mental processes as opposed to his physical labors. Radio, television, electronic computers, robots, teaching machines have all brought profound changes to our lives today. The Age of the Thinking Machine is upon us, as well as the use of communication machines, specifically television, to relay to us all the knowledge of the Thinking Man.

I remind myself, and you, that television in education is not the one and only and ultimate answer to the problems introduced by population explosions, lack of qualified teachers, and many of the other concerns we have about education today. Television has something to offer in education—much to offer if it is properly used. In some ways, television may be a god-send, but it is certainly no God.

Let's look at the Oregon experiment as a case study in collegiate teaching by TV. Since 1952, we have been interested in the potential of television for the State System of Higher Education in Oregon. A study conducted in that year by an inter-institutional committee recommended a master-plan for use of educational television in the state, but necessary funds and legislative support were not forthcoming. Continued interest finally resulted in support by The Fund for Advancement of Education, with an agreement to underwrite a two-year period of experimentation in the simultaneous teaching of courses by television to four

different institutions of higher education in Oregon.

The original plan called for a closed-circuit television network to connect the institutions, but the cost of leasing facilities from the Telephone Company was so great that the plan was abandoned in favor of erecting an educational television transmitter centrally located among the institutions.

Starting in the fall of 1957, the Oregon State System of Higher Education initiated a program of teaching common course offerings by television to students viewing in classrooms of three public and one private institution of higher education in the state: the University of Oregon, at Eugene; Oregon State College, at Corvallis (40 miles distance); Oregon College of Education at Monmouth (20 miles farther); and Willamette University at Salem (another 15 or 20 miles away).

Three courses were offered the first year by open-circuit broadcast from production studios located on both the University and the State College campuses. The courses were United States History, General Chemistry, and a year's sequence in Education—with courses entitled School in American Life, Human Development and Educational Psychology: Learning. Chemistry was repeated a second year; Appreciation of Literature, English Composition were added; and since that time we have televised Introductory Geography, Descriptive Astronomy, General Hygiene, 19th Century Poetry, Meteorology, and Fundamentals of Accounting.

Since the University is basically a liberal arts institution with several professional schools, the State College is basically a scientific and technical institution, Oregon College of Education has until recently been a college of education (which now also offers a general college degree), and Willamette University is a small private liberal arts college. The variety in kind of schools and philosophy in education presented challenges in programming.

Our primary interest has been to search out the potential of television as an instrument which might improve the quality of instruction and which might be used to distribute and multiply the effectiveness of outstanding teachers.

Participation in the project has been on the basis of decisions by the different school administrators and faculties rather than by edict of the Chancellor of the State System of Higher Education. A basic assumption of the experiment has been that television as an aid to teaching must be looked upon as an evolutionary rather than a revolutionary tool and that the experimental use of it should be by choice rather than by arbitrary order. This approach demanded considerable discussion and negotiation with the different institutions so that mutual agreement could be reached on course offerings. It required further some subtle adjustments in scheduling, in course content, and in other factors in order that established patterns at different institutions and conventional teaching methods and staff teaching loads would not be completely disrupted by the televised teaching experiment. As might be expected, obtaining cooperation and maintaining coordination and communication among the several institutions has proved a most difficult problem—a most interesting “challenge.”

The greatest “challenge” has been combating the resistance of faculty to the use of television for instruction, especially TV’s use on an inter-institutional basis. Most professors are conservative, if not reactionary, regarding teaching methods or the introduction of such a startling

innovation as television to education. The willingness to use such a medium of instruction is complicated by factors of status, prestige and ego of the teacher involved. When one teacher on a single campus is chosen to teach a course by television, you can imagine some of the resultant feelings and questions which develop in the minds of professors on other campuses who are also considered specialists in that teaching area, and whose potential students are asked to take the course from another professor presenting the course by TV from another campus. There have been enough faculty members interested, however, that we have been able to carry out inter-institutional teaching quite successfully. Although there are many professors who look to television as a new teaching opportunity, the matter of wide faculty acceptance of this method of teaching is still one of concern.

There seems to be no problem with student acceptance. If the teaching is of good quality, students don’t seem to care whether the professor is from their home campus or from some other institution. Taking courses by inter-institutional television does not seem to legislate against the students. Our findings indicate comparable achievement by students in televised versus conventionally taught courses, and comparable achievement by students on all campuses reached by television.

After four years of experimentation in televised instruction among several institutions, we would say that such instruction is feasible and desirable if the administration and faculty of the different institutions enter in to such instruction somewhat willingly, and, with an attitude of cooperation and healthy investigation regarding the opportunities and advantages which this type of teaching might bring to the higher educational scene.

Apparently there will be continued use of television for teaching on an inter-institutional basis in Oregon. Next year was to have been the end of a five-year experiment in inter-institutional TV instruction. The presidents of the various state

supported institutions of higher education and the Chancellor of the State System of Higher Education recently agreed, however, to continue the use of inter-institutional televised teaching as an integral part of instruction in the state. Negotiations are presently being carried out to set up such teaching on some permanent basis.

Construction of another ETV station is currently underway as the first link of a TV network in Oregon. This station will be located in Portland and will begin broadcast shortly after the first of the year. Microwave connection of this station with our present station in Corvallis will permit broadcast from both stations simultaneously to reach four of the six tax-supported institutions of higher education in the state (OCE, OSC, PSC, UO). Production studios will be in Portland, at Oregon State College in Corvallis, at University of Oregon in Eugene and at the State Capitol in Salem. Programs can originate from any of these points and be broadcast over either Channel 7 in the upper Willamette River Valley or Channel 10 in the lower Willamette River Valley in Portland. In addition to making these facilities available to these state schools, there are 6 or 8 private institutions in the coverage area who will be asked to share the advantages of open-circuit telecourses if they wish to avail themselves of the opportunity. Although the project I have been describing has been developed for classroom viewing by students regularly enrolled at the several state institutions, any interested citizen of the state may also enroll in the courses for Extension Credit. With the addition of the Portland ETV station, the two stations will effectively reach an area in which 70% of the population of the state resides. So, a large portion of the Oregon public will be given the chance to avail themselves of these televised educational opportunities.

Since there are no Junior Colleges in the state of Oregon, it was reasoned a few years ago that course work equivalent to that offered in such institutions might be

made available to the public over television in good viewing hours in the evening. Last year, then, a series of telecourses were initiated for broadcast over KOAC-TV in the evening hours as a start of a Junior College of the Air. Courses in Mathematics, English Composition, Principles of Economics, and Shakespeare were presented. This year the program continues with American Literature, History of Western Civilization, Problems of Philosophy, and First Year French. People enroll in these courses through the General Extension Division of the State System of Higher Education.

In terms of enrollment, these TV Junior College offerings have attracted comparatively few students but it is expected that enrollment will increase appreciably when offerings are made available in the heavily populated areas around Portland after the first of the year. There has also been a very successful televising of a General Psychology course in the early morning hours over a commercial TV station in Portland and they will become a part of the Inter-Institutional and/or TV Junior College program.

Though enrollments of the general public have not been in large numbers (there are 205 registrants at the present time), those enrolled come from a wide area representing 53 different towns in Oregon and 7 different towns in neighboring Washington state. About 200 people who have not registered have written in for course material and sent money to receive the Viewer's Guides, and indications are that a fairly sizable audience is "looking in" on the courses.

In addition to the television teaching activity, each college in the state system is working toward the development of closed-circuit television facilities for use on individual campuses, and it is expected that lower-power UHF transmitters might be utilized at some future time to expand further educational opportunities to selected Oregon communities and to broaden the reach of televised education in the state.

The Oregon State System of Higher

Education is committed to optimum use of television for education. This doesn't mean that televised teaching is being welcomed by everyone. There is still resistance to the "machine" and much friendly persuasion must be continued to point out the potential of television in education. We have not developed a

situation which can be "programmed" into a Univac, an RCA 501, or an IBM 7090 and which will undergo analysis and report out each time that "Oregon's use and plans for television in education spell glorious success!" Would that we did have some machine to help us analyze the challenges which have and do face us!

The Teacher's College: Research in Closed Circuit TV

Robert J. Keller, Professor of Education and Director, University High School, University of Minnesota

The same growth pattern of enrollments which has brought tremendous expansion to education at all levels has caused colleges and universities which prepare teachers to re-examine their policies and practices as they seek ways of educating more and better prepared teachers. Institutions which serve teacher education functions have been hard pressed to stretch the supply of qualified college-faculty members at a time when the size of the generation from which these teachers are drawn is declining in proportion to the expanding student population.

Among the alternatives suggested for handling the problem is the use of closed circuit television and television kinescopes. The College of Education of the University of Minnesota uses closed circuit TV demonstrations originating in the University's High School as part of its teacher education program in secondary education. 1960-61 is the sixth year in which television demonstrations have been used as part of an introductory professional education course in the junior year.

A project, financed by a three-year grant from the Fund for the Advancement of Education, was primarily focused upon teacher utilization and ways in which closed circuit television might be used to reduce the need for number of

college faculty members, while preparing as many or more teachers and maintaining a high level of program quality. This project generally demonstrated the feasibility of having large numbers of observers view the same demonstration simultaneously, thereby reducing the number of faculty members involved in the instruction.¹ The staffing effect was only one of the gains noted by this procedure, however, since simultaneous viewing by the entire class provided the advantage of a common experience not usually found in the classroom observation. Both college instructor and students were provided with a common demonstration which could be pre-planned and arranged to reflect the specific objectives of instruction which were associated with the unit under study.

CURRENT RESEARCH

Three Ph.D. theses have been completed on the basis of this project.²

¹ Final report is in preparation. A preliminary report was issued by Robert J. Keller and Orrin E. Gould (currently out of print), College of Education, University of Minnesota, June, 1957, p. 6.

² Gould, Orrin E. *Ibid.*

Thompson, Franklin J. "Use of Closed Circuit Television in Teacher Education: Relationship to Professional Attitudes and Interests." Unpublished Ph.D. Thesis, University of Minnesota, June, 1960.

Abel, Frederick P. "Use of Closed Circuit Television in Teacher Education: Relationship to Achievement and Subject Matter Understanding." Unpublished Ph.D. Thesis, December, 1960.

Gould analyzed the nature of student observation under three different conditions: use of closed circuit television demonstrations, educational films and direct classroom visitation. The same incomplete block design was used by Thompson and Abel. Thompson studied the relationships between student attitudes and the three conditions of observation while Abel sought to uncover relationships between the media and subject matter understanding.

Some findings of the three media are significant:

1. *The pattern of what students observe from CCTV demonstrations, direct classroom visitation, and educational films differs from one media to the other.* In Gould's study the content of film observation tended to emphasize methodology of teaching which was highlighted in the McGraw Hill series of "Understanding Children." Direct classroom observers were more likely to emphasize class qualities such as range of abilities, extent of participation, industry, discipline, etc. CCTV observers were quite like the direct observers but seemed more likely to emphasize qualities and behavior of individual students, their abilities, contribution to the class, acceptance of responsibility or achievement. Teacher qualities were more often noted in direct and CCTV observations than they were in educational films. This finding highlights the ability of the CCTV camera to screen out extraneous details and to focus clearly on aspects of the demonstration relevant to the lesson.

2. *The experiences of observers tend to color their attitudes toward the observational medium employed.* Those whose dominant medium was the CCTV demonstration preferred this medium in larger proportion than those whose dominant medium was either educational films or direct classroom visitation. The same statement could be made for the primary acceptance of each of the latter two media for both of the others. When the three media were compared directly, however, Thompson noted that direct class-

room observation, the CCTV demonstration and educational films followed each other in that order of preference. The CCTV demonstration and classroom observation had a greater acceptance than educational films for observation purposes and were not greatly different despite the level of significance attached to that difference. In general this order of preference persisted for detailed analysis of specific functions served by observation.

3. *The usual finding of "no significant differences" was also a major characteristic of findings for the present three studies.* This was generally true of pre- and post-test differences and level of accomplishment whether the measure was one of attitudes (Minnesota Teacher Attitudes Inventory, the specially constructed Course Attitude Questionnaire, or the Preferred Teacher Characteristics Scale); achievement (course examinations and standardized achievement tests including the Horrocks and Troyer "Tests of Human Growth and Development") or the first edition of the Observation Skills Test which was previously described. One finding which deserves further scrutiny, uncovered in Abel's study, suggests a possible differential effect related to ability with high ability students better able to apply educational principles to interpret the observational experience than those of lesser ability.

The present study supported under Title VII of the National Defense Education Act has two primary points of emphasis: (1) The development of kinescope recordings of classroom demonstrations over CCTV for use in a variety of circumstances such as pre-service education during the introductory and student teaching phases of the program as well as inservice education; and (2) Research related to the effective utilization of the CCTV telecast, use of kinescope recordings, and direct classroom visitation for observation purposes.

Major attention is given to the field of science, mathematics, and modern languages at the secondary level but work

has not been devoted exclusively to these fields.

New and unusual teaching procedures and course content or materials can be demonstrated by means of CCTV either directly or by kinescope and magnetic tape recordings. The sound track can be used to record the lesson itself or for a narrator to explain the educational significance of that which is being demonstrated. Ideas which evolve experimentally in the laboratory high school can thus be disseminated to teachers or prospective teachers for use in preparatory or inservice education.

A 6X6 replicated block design is currently being used to analyze the effect of the various kinds of CCTV and other observation with students in their introductory education course. Demonstrations are a regular part of classroom instruction. Both CCTV and direct observation are utilized in an effort to secure the best qualities of each. The Observation Skills test, several rating scales, plus a number of measures of attitude and achievement, comprise the instruments used in this research. Much effort is being devoted to this project which is currently less than half-way through its three-year cycle.

In summary, some progress has been made on the use of CCTV in teacher education but much more needs to be done. The present research has not been concerned with direct teaching of teachers or prospective teachers by educational television although this has been demonstrated in other studies. Our emphasis on the use of the medium for observational purposes has led to the need for greater

understanding of the nature of perception and development of a measure of observation skills with the hope that this can be related to quality of teacher education.

* Some advantages of CCTV become immediately apparent: its possibility for simultaneous viewing of the same demonstration by large numbers of observers, the size of the audience reached by a carefully pre-planned demonstration, the possibility of close linkage between instructional content and functions to the teaching-learning situation, and the economy of instructional staff which are related to the previously-cited advantages.

Technical and educational problems identified by this experiment include quality of audio pick-up in a normal classroom situation, need for close coordination between the college professor and the demonstrating instructor, development of good working relationships between technical and educational staff in which the educational staff has priority, and the amount of pre-planning which is required for effective demonstrations. Other questions include the kinds of content methodology and class arrangement which are most effective on CCTV, and what kinds of educational objectives can best be presented via the several observational media.

For some of these problem areas we now have tentative answers. For others we are still seeking solutions. The experience of seeking and sometimes finding solutions in this area is an interesting one which involves much hard and concentrated effort but is never dull.

Regional Projects in Instructional Television— Greater Columbus Area ETV Project, Airborne TV, Etc.

William H. Ewing, Coordinator, OSU-MPATI Resource Center

MPATI, Midwest Program for Airborne Television Instruction, is one of the most dramatic efforts to help meet the critical problems of quantity and quality in education. Specifically, MPATI is organized first to broaden the range of educational offerings to schools—science and foreign language, for example—second, to increase the quality of offerings not only by use of the nation's most talented teachers, but by presenting demonstration materials, historic documents and other items which ordinarily would not be available to the classroom teachers. Thirdly, Airborne instruction expects to be able to do these things at normal cost.

MPATI will telecast instructional courses on elementary, secondary and college levels. The courses are pre-recorded on video tape and transmitted from a plane circling at high altitude over north central Indiana to schools and colleges in a six-state area. Transmission over UHF channels 72 and 76 is picked up directly, usually with special outside antenna and distribution system. Demonstration schools are being established in each of the 19 resource areas.

MPATI is organized to insure the maximum possible participation on the local level, both in the planning and operational stages of the project. In addition to large area committees of leading citizens, school and college administrators, curriculum and subject matter specialists, technical experts and many other qualified persons in and outside the six state area have been involved in the planning. An extensive research program will be carried out.

At the time of this report, interest in the Airborne program is growing rapidly and a preliminary survey, made in October, indicates that more than 500,000 school children would be involved in the early phases of the program. Although some delay has been necessary because of technical installations, all other phases of the program are proceeding as planned, and it is expected that full-scale operation will be underway in September of 1961.

Further information concerning the project may be secured by writing to MPATI Headquarters at B-10 Memorial Center, Purdue University, Lafayette, Indiana.

Problems of the School Administrator Using Educational Television

SCHEDULING

*Paul C. Garrison, Superintendent of Schools,
Richmond, Indiana*

Richmond is a town of 45,000 located in central eastern Indiana, with an agricultural and industrial background. It is slightly conservative, slightly above the

state average financially. In our schools, from kindergarten to the twelfth grade, we have about 9,500 boys and girls.

Like any other community, we're keenly aware of the debates over our schools' strengths and weaknesses since Sputnik I. Our administrators, like most, have given considerable thought to ways

of upgrading the quantity and quality of educational offerings.

In the fall of 1959 we first received information on the Midwest Program on Airborne Television Instruction. Among its objectives: 1) to broaden the range of available educational offerings; 2) to increase the quality of offerings and at a cost less than that for achieving such quality by any other means; 3) to develop long-range financing of the airborne program by local and state authorities throughout the six-state area.

Richmond was well situated to participate in the program. We are only sixty air miles away from the airborne transmission at Montpelier, Indiana. Many of our school buildings have conduits for TV wiring. We initiated our plans during the first months of 1960. First, we held a series of discussions and talks to service clubs, parent-teacher organizations, etc. Secondly, we accumulated all available information as the basis for faculty discussions. Sufficient interest was shown by staff and community to warrant recommending to our Board of School Trustees that we participate, realizing that success of the experiment would depend upon a large enough number of schools participating.

The Board stipulated that any teacher or principal participating in the voluntary airborne experiment must have preparation in one of the airborne workshops held in the summer of 1960. We were delighted to find that participating educators from eight of our schools, ranging from kindergarten to high school, attended the workshops.

Following issuance of the MPATI schedule of courses, all our participating elementary teachers and principals met to make specific course plans. Secondary school participants also met. It was obvious from the plans of the second semester—the starting period for the airborne experiment—that some rearranging would be necessary in various buildings. We asked that the plans of each building be in our hands by November 15 so that we could work out the technical aspects. We

realized the need for keeping records. We proposed techniques of evaluation.

By October we secured sufficient funds for sixty to seventy school installations.

We don't feel our plans are unique—there are still unsolved problems of evaluation, equipment installation, and provision for "in-service" training. We have tried to inform and prepare our teachers, parents, school board, and other members of the community of what we propose to do and how we propose to do it, with the hope that the results will enable our people to have better educational opportunities in our schools. Our teachers and administrators have devoted time and effort in studying ways and means to implement this challenging technique for learning.

Regardless of the outcome, we feel we would not have been true to our profession unless we had made every effort to use the opportunities furnished us in the sixties. It is a thrilling adventure. We hope it turns out well.

PLANNING

*Philip R. Pitruzzello, Staff Associate,
Graduate School of Education, University
of Chicago*

Extensive work has been done in the area of staff and resource utilization, and the Ford Foundation has supported much of the experimental work which has been done in schools throughout the country. This was prompted by serious concern about the teacher shortage we are facing—a situation which is growing more acute.

One of the major ideas explored is that of utilizing teacher time better, especially in the area of large group instruction. They envisioned using all aids—human or technical—to save teacher time and improve instruction.

They were concerned (over the fact) that although films, television, radio, filmstrips and teaching machines had been around for a long time they had not made the impact they should have made within the teaching profession. This was not because of a rejection of theoretical

concepts; however, the radio era had come and perhaps gone without making a real impact in education. Exploring further, it was observed that there are still two main ways a student has access to learning in the secondary schools: verbal and through the written word.

In offering possible solutions to the problems, the question of scheduling had to be faced. There is a traditional rigidity about scheduling. The day is divided into forty or fifty-minute periods, and once the schedule is set, it isn't varied.

The Secondary School Principals' Staff Utilization Committee felt that pupils might meet in small, medium-sized, or large groups, whatever size group was compatible with the activity to take place. Some way, a decentralized decision should be left up to the teacher so that pupils on a given day could meet in a large group or a small group without the necessity of disrupting the whole school day. Not only should the time block assigned to a particular activity or subject vary, but not all subjects should necessarily meet every day.

The major recommendation by the committee was the use of some form of team teaching. Many variations are possible, but basically it means that a team of teachers takes responsibility for a group of students. The ideal teaching team would have a composite of complementary skills greater than the skills possessed by each teacher separately.

With periods of time devoted to large group instruction, teacher time can be freed and redeployed in other areas, and a greater flexibility can be obtained within blocks of time. The aim of the staff utilization group was to let the activity determine its time block and to redistribute teacher time saved into more planning and other desirable activities not now being done in our schools.

Unless our schools adopt this procedure, I feel that television will remain—as have other educational aids—as enrichment, but not as an integral part of the program. I don't think it can become an integral part of the classroom program until our

schools obtain a flexibility that will allow this to happen.

FINANCING

*Kenneth Oberhotzer, Superintendent,
Denver Public Schools*

The matter of financing begins with the status conceived for television: as the licensee of an "open-circuit" community TV station or of a "closed-circuit" installation. I shall talk of our experience as licensee of Channel 6 in Denver, Colorado.

First came the capital costs of getting a station underway: legal and engineering surveys, then equipment and buildings, installation, maintenance; then operations, personnel, scenery, overhead costs, and administration.

The ways of financing also vary greatly. Many operations are begun by gifts, grants and "outside" sources of funds. Other ways are special appropriations from a board of education or a legislature. A third is as an integral aspect of the entire instructional program and the budget of a school, school system, college or university.

A typical pattern for many licensees is a community council, corporation, or foundation. Several school systems, colleges, and universities are licensees. There are state networks, there are those who use commercial facilities, or there are combinations of commercial and non-commercial facilities.

There is a necessity for inventiveness in financing from combinations of local, state, and national resources such as the National Educational Television and Radio Center, the Ford Foundation's Fund for Adult Education, the National Science Foundation, the U. S. Office of Education under Title VII, and other sources.

Many educational stations are in the business of production contracts and services in the community. Under the sponsorship of local agencies, there are direct appeals with brochure to the community; contributions from subscribers, school

systems, and colleges; the use of telethons; and in the case of a California station, an annual auction. There is always at least one principal financial source. Other supplementary, continuing bases of support have to be found.

A second aspect of the problem is to find the funds to produce the kind of quality desired in your programs. After getting underway, this matter of finding funds to make the difference between ordinary and extraordinary programs is the biggest problem.

A third and almost equally important problem of financing, specially related to quality, is the securing of funds for research.

Securing funds for program production, for improving quality, and for research is a lot of hard work, demanding the greatest inventiveness we can bring to it.

UTILIZATION

*Helen Seel, Department of Radio-TV,
Cincinnati Public Schools*

The school administrator, as I see it, has two important roles in the use of television: orientation and control of technical quality.

By orientation, I would mean explaining the role of television to parents, teachers, and pupils; to answer such questions as "Is this an experiment?" "Will the children be given any tests, and if so, will they affect their grades?"

I think the other responsibility of the school administrator is the technical control—the whole problem of installing and maintaining equipment. If the children can't see or hear well, or if they are in rooms where they are uncomfortable, this can have a tremendous bearing on the actual use of the telecast lesson.

The classroom teacher is not relegated to a minor role by the television teacher. The classroom teacher has the specific

role of creating the climate for learning. She can either make or break the effectiveness of television by the way she explains "what we are going to have today," and the way she turns on the TV set. She deals directly with the children and their parents. She gives the grades.

By using television the classroom teacher is freed of some of the advanced preparation and can spend more time preparing the follow-up discussion. How can we expect a teacher with assignments all day long, dealing with from 150 to 500 pupils, to operate at maximum speed and efficiency all five periods a day and find time for a great deal of preparation?

Television teaching affects the role of the pupil too. He must be attentive and learn to concentrate. He must be able to differentiate between what is of first importance in each lesson and what is secondary. Even in the lower grades he may have to know how to take notes, and be more responsible on his own.

What is the role of the television teacher? Does she have in mind as she prepares the TV lesson the goals of the course; does she take opportunities to answer questions the students would most logically ask; does she allow time for the students to think and react? Does she limit the lesson to the purpose already defined, and work within the time limits of the lesson and develop a few concepts well? Does she prepare for the classroom teacher an outline of each program, study guides, and suggested activities for the follow-up in the classroom? Does she decide what can most effectively be done in the classroom?

In our whole utilization of television, we have to find better ways of evaluating what we are attempting to do. I feel that because our means of evaluation are of a formal type, we are doing many things on television for which we have no good method of evaluation.

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